PHILADELPHIA, FEBRUARY 11, 1882.

ORIGINAL LECTURES.

CLINICAL LECTURE ON A CASE OF SARCOMATOUS TUMOR.

Delivered at the Allgemeine Krankenhaus, Wien, January 9, 1882,

BY PROF. BILLROTH.

GENTLEMEN,—This man, B. F., a native of Austria, white, 26 years old, married, comes to our clinic to-day complaining of a large swelling just above his left knee, extending, as you see, one-fourth the distance up the thigh. This swelling involves the circumference of the limb, although it is greater upon the outer aspect. It is lobulated, as if encapsuled: its consistence varies from hardness to extreme softness.

The skin is somewhat pigmented, and the superficial veins are distended, but in no place is the skin adherent to the tumor.

The local temperature is not elevated, and there is comparatively little tenderness. The knee, however, is contracted, as the result of inflammatory irritation.

The surgical history of the case, which the registrar has just read, is scanty, but possibly will answer our purpose. Three and one-half months since, this man received a contusion of a trivial character in the region of the left knee. One month subsequently he noticed, for the first time, a small swelling upon the outer aspect of the lower extremity of the left thigh. This he supposed was the effect of the contusion. His village physician advised cataplasms and similar remedies; but their application was attended with no improvement. One month later he was compelled to take to his bed: since that time the tumor has increased in size until it has reached its present proportions. At the same time the left knee has become greatly contracted. At no period of development has the tumor been the occasion of great pain. Its size now is not larger than a man's head. Our patient's health, according to his own statement, has been exceptionally good until within the last three and one-half months. During the growth of the tumor, however, he has had several slight hemorrhages from the lungs.

In regard to the man's family history, the following facts have been elicited. His mother died of phthisis, probably of a tubercular character. His father and his own children are perfectly healthy.

Physical examination reveals the existence of disease in the apices of both lungs. It is, however, incipient. As to the diagnosis, there can be but little doubt that the tumor is a sarcoma,—probably a central osteosarcoma, possibly a periosteal osteosarcoma.

The diagnosis must be made by attention to the following points. Sarcomata occur very frequently after some local irritation. In the present case, however, I do not think the contusion stands in a causative relation to the tumor. A month elapsed between the reception of the wound and the first appearance of the tumor without the development of any symptom. The locality is a not unfrequent one for sarcomata. Skin, muscle, nerve, bone, periosteum, less frequently glands, are the usual seats.

Sarcomata occur most frequently in middle life, occasionally in the second decade, rarely in old age, and least frequently in infancy. I have never known sarcomata to occur in the long bones except in middle life. Sex seems to be without influence. The tumor is relatively painless, unless placed in immediate relation to a nerve-trunk. The tumor is encapsuled, and does not infiltrate. The rapidity of growth and consistence are without diagnostic import.

The pathology of sarcomata is interesting. Their precise anatomical and pathological definition and limitation are, even yet, far from certain.

In general it may be said, a sarcoma is a flesh-like tumor composed of tissue belonging to the developmental connective tissues. These tissues do not go on to form a finished type of tissue, but tend to peculiar degenerations. The naked-eye appearances of osteosarcomata are well illustrated by the specimen and paintings now in your hands. Generally they have a sharply-defined, rounded outline. They are encapsuled, and are so differentiated from the infiltration of carcinoma. Sarcomata only rarely affect the surface. Color, consistence, vascularity, vary indefinitely.

One peculiarity of sarcomata must be

mentioned before leaving the subject. They are sometimes so white and soft as to resemble the brain-substance.

The anatomical metamorphoses of sarcomata are numerous, and are illustrated by the specimens placed before you.

In the sarcomata occurring in connection with bone, as in the present case, ossification is very common, and it may go on until the sarcoma is converted into an osteoma.

I am inclined to the opinion that, in the present state of our knowledge of sarcomata, their numerous subdivisions, based upon their histological characters, are of no great value in the diagnosis of sarcoma during life, and that the diagnosis, prognosis, and course of these tumors depend so much on locality and rapidity of growth that I will here say but a word upon their microscopic appearances. It is probable that a section of this tumor would reveal giant-cells in large numbers. These giant-cells occur very frequently in central osteosarcoma, less frequently in periosteal osteosarcoma. By softening, these cells lead to the formation of cysts, or they may ossify: both of these conditions, probably, obtain in the present case. It has been stated that these giant-cells may form the nucleus of a smallest tubercle.

As to prognosis and course, I need only say that central osteosarcomata are generally solitary tumors, very seldom tending to general infection. In regard to their topography, they develop most frequently in the lower jaw, next frequently in the tibia, radius, and ulna, comparatively rarely in the present situation.

Our patient asks us to do the best we can for him. Resection and local extirpation of the bone are out of the question. We must amputate immediately above the tumor, about the middle third of the thigh. In these operations I adopt a modified form of the antiseptic method. The thigh, in the first place, is shaved around its middle third, then thoroughly scrubbed with brush, soap, and five-per-cent. solution of carbolic acid in water. Above and below the site of the amputation cloths saturated with five per cent. solution of carbolic acid in water are placed. I employ no spray, but you see here a small rubber hose which affords a convenient method of douching the limb and stump with a three-per-cent. solution of carbolic acid in water. Instruments are submerged, when not in use, in a three-per-cent. solution of carbolic acid in water. A five-per-cent. solution of carbolic acid in water is employed for washing the hands of the operator and assistants.

As an anæsthetic, I use chloroform.

Before the operation the vessels must be emptied of their blood by Esmarch's plan. Instead of the tube, however, I employ a flat rubber band. After the operation the vessels are secured by torsion, acupressure, and the catgut ligature.

As regards choice of methods, I believe the circular incision is the normal method for all amputations. For the present case the *circular incision in three planes*, by which the skin, muscles, and bone are divided in these different planes respectively, I deem best. The knife for the operation has a blade twelve inches long, with heavy back. The actual performance of the operation, at the request of my assistant, Dr. Anton Wöfler, I will give to one of his students.*

Now, gentlemen, here you have the three incisions-strata, namely, that of the skin, that of the muscles, and that of the bone. The latter lies at the bottom of the funnel-shaped wound.

A jet of the three-per-cent. solution of carbolic acid in water is now turned upon the stump for a few moments. The vessels are then secured in the manner I have indicated, and the Esmarch band is removed. As hemorrhage has now entirely ceased, the edges of the incision must be approximated vertically, after every part of the stump has been thoroughly douched with the three-per-cent. solution of carbolic acid in water. For this approximation I employ two sets of sutures. The first set consists of three. They are silver wire, with one flat, round piece of lead at each extremity. These pieces of flat, thin lead, when approximated and held in position by two to four perforated shot, are separated from each other by the opposite edges of the stump. They are passed through three-fourths of an inch from the free border of the circular incision. In this manner three-fourths of an inch of raw surface along the now vertical line of incision is secured in absolute approximation. The free border of the incision is secured by the second set of ordinary

* Here the assistant came forward and operated in the manner expressed in the text, Prof. Billroth watching and criticising.

white silk sutures. Three pieces of carbolized drainage-tube, with their extremities closed by clips, are introduced into the wound.

This mode of suturing was introduced by Lister, but was first applied in cases of this kind by myself. For a dressing, strips of a coarse gauze, disinfected and with its meshes filled with powdered iodoform, are employed. Around the stump and over the gauze cotton deprived of its fat is placed in sufficient quantity to exclude foreign matter and secure equable pressure. Over the whole an impermeable rubber cloth is placed and secured by a number of bandages which turn round the groin in the form of a Spica. As a still further precaution, the entire limb and dressing is surrounded by plaster-of-Paris bandages, in the form of a Spica of the groin. This dressing will be removed and renewed to-morrow. The patient has now recovered from his narcosis, and evinces very little shock. His diet will be restricted, but he will not be confined to milk.

Length of operation, 11.30 A.M. to 1.30 P.M.

Tuesday, January 10, 11.30 A.M.—The reporter of this lecture was present when Dr Billroth inspected his patient twenty-four hours later. The patient's general condition was excellent; he had slept well, and did not complain of pain; temperature ranged from 37° to 37.5° R.; pulse and respiration normal.

The entire dressing was removed from the stump, and the drainage-tubes were removed, made shorter, and restored. The iodoform gauze was renewed, but no water was applied to the stump. Cotton in less quantity than for the first dressing was reapplied. Over the usual rollers a number of plaster-of-Paris bandages were again applied in the form of a Spica of the left groin.

Dissection of the amputated limb and microscopic examination of the tumor established the truth of the diagnosis of osteosarcoma of central character.

NERVE-STRETCHING has been abandoned by Billroth after a fair trial.—*New York Medical Record.*

OWING to the removal from Denver of Dr. Adams, the *Rocky Mountain Medical Review* has changed its name to the *Rocky Mountain Medical Times.* It is edited by Drs. Thomas H. Hawkins and F. A. E. Disney.

ORIGINAL COMMUNICATIONS.

REMARKS ON PERSISTENT HYALOID ARTERY—TWO CASES PRESENTED FOR OBSERVATION.

Read before the Philadelphia County Medical Society, November 16, 1881,

BY W. S. LITTLE, M.D.

THE hyaloid artery and its branch, the capsularis artery, which, as it is spread about the posterior capsule of the crystalline lens, forms the capsularis membrane, and which in the region of the circulus Mascagnii joins the pupillary membrane, which covers the anterior capsule of the crystalline lens, arising from the margin of the pupil, are for the development of the crystalline lens; after the accomplishment of this the hyaloid artery and the capsulo-pupillaris membrane disappear, the space occupied by them, according to Stilling and others, fulfilling another function, that of a lymph-space. The development of the crystalline lens is similar to that of the whole fœtus, and when it is fully formed the source of its nutrition is cut off, and the channel through which this occurred takes on another function.

The crystalline lens is developed from the same layer as the conjunctiva and the epithelium of the cornea, the epidermic layer or ectoderm. As the depression in the anterior pole of the ocular vesicle advances, the margins of the depression approach and unite again, leaving an impacted pouch, which finally separates from its connection, and then a tissue which was outside of the ocular vesicle is found inside of the vesicle; from this the formation of the crystalline lens begins, the hyaloid artery is sent forward to this tissue, and its capsularis branches encircle it behind, and branches from the margin of the pupil cover its anterior portion and anastomose with the capsularis membrane, forming the capsulo-pupillaris membrane; the cornea is formed by a gradual advancement and union of the cephalic layer underneath the epidermic layer in front of the crystalline lens.

The hyaloid artery lies in the hyaloid canal, or canal of Cloquet, and is a branch of the central artery of the retina, or one of its retinal distribution. The canal begins at the optic nerve entrance, and close to the nerve is called the area Martegiani. Its depth is here greater, the width two millimetres wide, same as it is throughout

the length of the canal, which is about that of the axis of the vitreous body, fifteen and four-tenths millimetres; the axis of the hyaloid canal corresponds to that of the optic nerve or blind spot of Mariotte.

Cloquet thought it to end in a blind sac at the fossa patellaris of the vitreous body, in which fossa the posterior capsule, with the posterior portion of the crystalline lens, is deposited. Stilling has found that the canal is coextensive with the space occupied with the capsulo-pupillaris membrane. The canal does not cross the visual axis of the eye, and is no source of defect to vision; as it lies in the axis of the blind spot, the optic nerve, even when it is occupied in post-fœtal life by the artery; on account of its position, the shadow of it does not fall upon the region of the yellow spot in the retina.

Only an artery occupies the canal, though Liebreich quotes a case where a vein was present; the artery at the end of the sac turns upon itself and passes backward again, though it gives off branches at the point to form the capsularis membrane, and the veins of the choroid take the place of the necessity for a hyaloid vein.

H. Müller in 1856 found this canal to exist in the eye of an ox; the same is found in the eyes of swine, dogs, horses, deer, and moose. In the sheep it is smaller,—one-half to one millimetre in width. In the other animals mentioned it is two millimetres wide, the same as in man. The artery, persistent or partially present, can be found in the eyes of these animals.

After the ophthalmoscope came into use, Saemisch in 1863, also Hannover about the same time, observed the presence of the artery persisting in a human eye. Zehender, Stör, Laurence, Mooren, Liebreich, Flarer, and Wecker have seen additional cases; Dr. Schapringer, of Philadelphia, also.

In the "Handbuch der Gesammten Augenheilkunde" the anatomy and literature of the subject can be found, given by Merkel, Schwalbe, Manz, Liebreich, Leber, Wecker, and Becker.

Manz classifies it under the head of malformation of the eye, when found persistent after the birth of the fœtus. Along with the hyaloid artery portions of the capsulo-pupillary membrane may also be found as a malformation. As Becker asserts the impossibility of an eye being developed without a lens, in the period of development of the lens it is a constant and necessary quantity, and when this is accomplished it should disappear. In cases of ectopia of the lens and vitreous body it is seen most frequently remaining persistent.

I do not know the refraction of the eyes in which the many observers have seen it, but in the two cases now present the hypermetropic form exists, and such eyes can be classified as those that have not reached full development for the function of sight.

While its presence has no connection with the pathology of the eye, the finding of it has stimulated the study of the minute anatomy of the eye. Its presence is, however, to be differentiated from blood-vessels developed in the vitreous body from severe inflammation of the vascular tissue of the eye and which are found in the examination of eyes lost by anterior staphyloma or in phthisis bulbi.

I present two cases of persistent hyaloid artery from the eye department of the Jefferson Medical College Hospital. The first one was found in a boy 6 years of age, who came to me at the request of Dr. Hearn, of this city, for the correction of a strabismus convergens. His case, with a picture very accurately drawn by Dr. J. M. Taylor, I presented to the American Ophthalmological Society at its last meeting. In his case the artery will be found containing blood, with the capsulo-pupillaris membrane entirely absorbed, and its free end oscillates in the vitreous body behind the crystalline lens.

The boy is hypermetropic, and +4D shows its region on the disk, +6D its middle portion, and +9 to +12D its extremity, according to the extent of its oscillation. As you can see the case for yourselves, a more minute description is unnecessary.

The second case possesses the artery only in its tissue, and with the capsularis membrane free from blood, though there is a slight pigmented material in the artery; it appears as a spectre of that existing in the first case, a fine opaque membrane only, attached to the posterior portion of the lens and passing backward to the optic nerve, between which attachments it is seen to oscillate. The course of the vessel is about the same as that in the first case.

The observation of the two cases illustrates better than words the conditions present and what their function is.

In closing, let me say, since the analogy between the development of the lens in the eye and the whole fœtus is so close, since the eye possesses tissues similar to those existing generally in the body, and its circulation and nervous connection so anastomotic with the whole body, we should undertake the studying of the anatomy of the eye to help explain the development of the whole structure, and at the same time study it so as to render our treatment of it alone scientific and rational. On account of this analogy, those that treat the eye alone cannot be altogether ignorant of the rest of the human structure.

Ophthalmology is not so closely related to surgery as it is to medicine, and its future advancement lies mostly in its connection with general medicine.

While ophthalmic surgery may tend to specialism, ophthalmic medicine affords the opportunity to make a general diagnosis.

COMPOUND DISLOCATION OF THE WRIST, WITH EXTRUSION OF THE SEMILUNAR BONE.

Read before the Clinical Section of the Philadelphia County Medical Society, November 16, 1881,

BY M. O'HARA, M.D.,
Physician to St. Mary's Hospital.

D. A. B., æt. 40, while going through a tunnel, on a railroad-car, at the rate of seventeen miles an hour, under sudden panic of apprehended collision, jumped from the platform. He was picked up insensible, in which state he remained for five minutes. He struck with his left hand on a rock and rolled, bruising his body in various places. He was immediately placed under the care of Dr. Schirner, of Tamaqua, who sends the statement that there was a dislocation at the wrist and fracture of the radius and ulna, which protruded at a wound at the ulnar side of the forearm. There was also, he states, displacement of two of the carpal bones, which were moulded into their respective places after reducing the dislocation and setting the fracture.

He came under my care two days after the accident. There was considerable local and constitutional irritation, and the parts were very much swollen. There was an open wound, about half an inch in length, on the ulnar side of the forearm.

On account of the local inflammation and the parts appearing properly in shape, no further examination was made. Apprehending ill consequences from the nature of the injury, I asked the counsel of Prof. Gross, who aided me in the conduct of the case thereafter.

The inflammation of the carpus, wrist, and forearm became very violent, and lead-water and laudanum, with applications of ice in an india-rubber bag, were ordered, the limb being elevated and placed upon a Bond's splint. Suppuration was profuse, and the whole limb became erysipelatous. Exacerbations of inflammation recurred every other night, for which large doses of morphia and quinine were given. The traumatic fever merged into pyæmia, during which the quinine was increased to thirty grains daily, with free stimulation.

At the end of ten days a displaced bone could be felt higher up than the original wound, which by this time, through ulceration, had become larger. It could not be decided whether this was a fragment of the radius or a carpal bone. Later on this was considered a source of irritation and was removed by Prof. Gross. It proved upon examination to be the semilunar bone. Burrowing abscesses were laid open and sinuses scraped, and the overhanging ledges of skin cut away. With a probe it could be ascertained that a sinus led into and between the bones of the carpal articulation.

Symptoms of pyæmia occurred about twenty days after the reception of the injury, quite marked, rigors, sweats, high and irregular temperature, attempted formation of abscesses in the calves of the legs and thighs, and inflammatory deposits in the elbow- and shoulder-joints. These symptoms would come and go, but did not proceed further than an absorbable exudation into the parts named, and did not proceed to suppuration. During the pyæmic stage the granulations were angry, unhealthy-looking, and exhaled an ammoniacal odor. This odor was apparent on the breath also. At this time it was necessary to suspend the arm and hand in the prone position, and only at this time, from the bending down of the hand, did it become apparent that there was a fracture of both bones about four inches above the wrist-joint. Through constitutional treatment and local applications, especially of acid nitrate of mercury, the wound gradually cicatrized, a little bone-dust, occasionally

with pus, coming from the sinus leading to the carpal bones, which finally closed.

The patient was three months ailing, but I present him to you with a very useful wrist. There is some slight anchylosis, which does not materially interfere with his daily duties. For much of the useful state of his wrist and fingers he is indebted to the assiduous attention of Dr. Lopez, who applied the faradic battery and passive flexion, and I must here thank him for the constant assistance he rendered me in the case.

The case is of interest for its extreme rarity and for the recovery from a very violent injury attended with extreme traumatic inflammation and severe pyæmia. From the patient's description, I would take it that there was a posterior dislocation of the hand, the hand on a plane posterior to the forearm; the upper end of the carpus formed a prominence on the dorsum of the wrist, and the lower end of the radius and ulna projected on the palmar surface. The carpal articulation being loosened by violence, in the process of replacement of the parts the semilunar bone was shot upwards on the front of the forearm.

Cases are related where the os magnum suffers a partial dislocation from the cavity formed for it by the scaphoid and semilunar bones, caused by violent flexion of the wrist, as in a fall on the back of the hand.

Holmes (p. 834) says, "Erichsen records a dislocation of the semilunar and pisiform bone; the latter was displaced by an effort to lift a heavy weight and drawn up the arm to the distance of an inch by the flexor carpi ulnaris.

"In the museum of St. George's Hospital is a curious specimen of compound dislocation of the semilunar bones of both sides, occasioned by a fall upon the hands from a great height. The bones were completely forced from their situation through a wound on the anterior surface of the wrist, one of them merely hanging by a small shred of ligament." Chisolm reports a forward dislocation of the semilunar bone in which excision of the displaced bone was required.

31 South Sixteenth Street, Philadelphia.

The Eastbourne Provident Dispensary, England, pays a physician two shillings a year per member for attendance, and allows fifteen pounds per annum for medicines, in a district where there are four hundred and fifty members.

SCENTED IODOFORM POWDERS FOR THE EAR.

Read before the Philadelphia County Medical Society, November 10, 1881,

BY CHARLES H. BURNETT, M.D.

IODOFORM is stimulant and anæsthetic, and has long been recommended as a local remedy in chronic inflammations of the middle and external ear, attended by discharge from the meatus. Its formula is CHI_3; it belongs to the methyl compounds; contains ninety-six per cent. of iodine by weight; when heated it will liberate iodine and hydriodic acid, and when only exposed without heat it will volatilize slowly, and to this volatilization is due the unpleasant odor. It is doubtless a useful remedy, especially in chronic purulent inflammation of the drum-cavity; but the odor of the drug, unpleasant alike to physician and patient and to their respective families, has wellnigh banished it from aural practice. To the writer it is not unpleasant; but so nauseous is its odor to most persons that positive injunctions not to use it have been laid on the surgeon by the patient's family. In order not to lose this beneficial aid from my armamentarium, it has occurred to me to have the iodoform scented with some of the essential oils, balsams, etc., for use in the ear, as has been done by others in ointments containing iodoform to be applied to other parts of the body.

Therefore, through the kindness of Mr. Charles P. Stout, of H. C. Blair's Sons, Eighteenth and Chestnut Streets, in this city, I have had made a number of combinations of iodoform and scents, and in two instances the combinations have been such as to deodorize in a measure the iodoform by forming another, but highly useful, compound, as will be shown later.

These powders are composed as follows:

1. Iodoform, gr. xx;
   Ol. menth. pip., ♏iv.
2. Iodoform, gr. xx;
   Ol. gaultheriæ, ♏ii.
3. Iodoform, gr. xx;
   Ol. amygd. amar., ♏ii.
4. Iodoform, gr. xx;
   Ol. lavandulæ, gtt. ii.

*5. Iodoform, ʒi;
   Tr. diptericis odorat., fʒij.

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* After having read this paper, the writer saw in the *Philadelphia Medical Times*, November 19, 1881, that Mosetig, of Vienna, had endeavored to mask the odor of iodoform by Tonka bean, *Dipterix odorata*.

6. Iodoform, gr. xx;
   Ol. menth. pip.,
   Ol. lavandulæ, āā ℥j.
7. Iodoform, gr. xxx;
   Ol. amygd. amar.,
   Ol. lavandul. flor.,
   Ol. menth. pip., āā gt. i.
8. Iodoform, ʒj;
   Bals. Peruvian., gr. iij.
9. Iodoform, gr. xx;
   Tannin, gr. x.

By thus scenting the iodoform its use is rendered more agreeable, and in the combinations with the non-oxygenated essential oils, like lavender oil or any of the turpentine series, there is probably obtained a good result in the diseased ear by the oxygenation of the essential oil, since in such oxygenation ozone is said to be generated, and this acts as a disinfectant and an antiseptic. As it is asserted that the exhaled odor of cut flowers in a bouquet produces ozone and makes them beneficial in a sick-room, it would seem likely that the exhalation and oxygenation of an essential oil might produce a similar result in a diseased cavity like the ear. On this point, however, it is desirable to hear from the chemists present.

In the case of iodoform combined with tannin, and in the combination with Peruvian balsam, the iodoform is very slowly broken up, and there is formed an iodide of tannin. This prevents volatilization of iodine, and diminishes the odor. Thus in the same powder we have the iodide of tannin, tannin, and iodoform. This powder not only smells the least, but is one of the most efficient in its healing power. The powder composed of iodoform and Peruvian balsam has the advantage of an agreeable odor, and of possessing at the same time a larger proportion of iodoform than the combination between this drug and tannin, as it requires but little Peruvian balsam to impart the pleasant odor to the mixture. I have used this particular powder, and that composed of iodoform and tannin, with so much satisfaction that to these two I give the preference as iodoform powders for the ear.

In regard to the others, it may be said that they possess all the virtues of iodoform, but, owing to the rapid evaporation of the essential oils, they ultimately possess the characteristic smell, excepting just at the moment of using them, nearly as much as pure iodoform.

All of the powders may be applied to the ear by blowing them in with a small powder-blower, or they may be carried in by means of cotton rolled on the end of a dentist's cotton-holder under perfect illumination of the auditory canal and the drum-cavity by means of the forehead mirror. These and all other medicaments are worse than useless if applied to a running ear by means of cotton, which is allowed to remain even for a short time in the canal, because the discharges are thus retained, maceration brought about, granulations favored, and foulness of the ear certainly produced.

So far as iodoform is concerned in diseased ears, it is best applied so as to produce at most but a thin film over the ulcerated or inflamed surface; and this is efficiently accomplished by smearing it on by means of the dossil on the cotton-holder, as already said.

THE SURGICAL ENGINE AND THE COCCYX — REMOVAL OF THE SUPERIOR MAXILLARY BONE WITHOUT AN EXTERNAL INCISION AND WITHOUT LOSS OF SOFT ROOF OF MOUTH.

A GENTLEMAN who assisted at both operations favors us with further illustrations of the capabilities of the Bonwill surgical engine as applied by Prof. Garretson.

I.—REMOVAL OF THE COCCYX WITHOUT DISTURBANCE OF THE PERINEAL ANATOMY.

This operation was done at Penn Manor on the person of a lady, a patient of Dr. William Kirk's, who had suffered from the complications of coccydinia for a period of thirteen years. Exposure of the coccyx revealed it as fractured and standing at right angle with the sacrum. The proposition of the manipulation, as enunciated by the deviser, considers the removal of the bone from a stand-point of simple enucleation; in other words, the removal of the part from its envelope of periosteum without disturbing the under layer, which is the surface of attachment for the soft parts constituting the posterior perineum. It will be seen that the purpose is secured absolutely, and that no disturbance of anatomical function can result.

Operation.—The patient being etherized and placed partially upon her abdomen, an arm being under the body at the

region of the diaphragm, to secure freedom in respiration, an incision was made through the skin and superficial fascia the length of the coccyx. These tissues being carried to either side by means of retractors, a second incision was made through the periosteum, and by means of a chisel-shaped knife this structure was raised and everted. In this last is the peculiar operation as practised by Prof. Garretson: it is as though one might cut down the centre of the upper surface of an envelope, exposing, in the turning aside of the paper, a letter lying upon the lower face of the envelope, the turned-aside upper part being of continuity with the bottom of the paper. A succeeding step employs the engine. A circular burr, the face side alone of which is cut, is placed in the grasp of the hand-piece, and, while in revolution to the extent of ten thousand times to the minute, is applied, with delicacy of manipulative touch, to the surface of the bone. In the case being recorded, five minutes sufficed for the disappearance of the coccyx in the shape of bone-dust, the under face of the periosteum remaining as undisturbed as though it had never been in relation with the coccyx. The wound, a superficial one, was put up to heal by first intention. Prof. Garretson was assisted in the operation by Drs. Kirk, Paxon, and Cottrell. The ease with which this operation is done after the manner described is its commendation. There would seem to be no probability of danger in it.

II.—JAW OPERATION.

This was an operation practised at the Oral Hospital, Monday, December 12, on the person of a young lady from Woonsocket, Rhode Island, a patient of Dr. Buckland. The disease was ivory exostosis. The tumor involved the entire right superior maxilla, producing a characteristic deformity.

In this case Prof. Garretson made the proposition that it would be found possible to remove the jaw without a cut that could be seen either from the outside or the inside. The patient being etherized, the operation was commenced by dissecting the soft parts from the jaw, thus affording a free exposure.

A succeeding step consisted in the removal of the central incisor tooth of the affected side, and in the use of a circular saw of small diameter revolved by the engine, which last, with a single moment of its revolutions, separated the one jaw from the other with such delicacy as to leave no line showing where the very fine instrument had passed.

Next followed a rose-head burr of large size and perfect temper, made for the occasion. This burr being placed in the mandrel, all the power possible was put into the engine, and little by little the hard mass was enucleated from its surroundings,—one hour and forty minutes being required for the work and for proper attention to the most careful etherization required.

In the steps of the operation each uncovering of the outside boundaries was named, and the parts exposed to the touch of different medical gentlemen present: the two for the removal of the orbital plate and the anterior wall of the spheno-maxillary fossa excited much interest. The burr, when it took away the bony floor of the eye, was running certainly not less than fifteen thousand times to the minute. Several persons placed a finger against the eye, and against the nerves as they lie in the fossa mentioned. Not a single vessel required to be ligated. The jaw and tumor removed, attention was given to syringing the cavity.

A conclusion of the operation consisted in stitching the soft parts of the roof of the mouth to the tissues that had been dissected from the outside face of the jaw. When all was completed, the parts looked precisely as before knife and burr were used, the projection made by the tumor alone excepted.

The patient in the last-described case remained in the ward just two weeks. Neither the eye nor its envelope showed the slightest expression of irritation as the result of the burring.

FIBROID TUMOR OF UTERUS—HYPODERMIC INJECTIONS OF ERGOTIN—CURE.

BY F. H. MILLIKEN, M.D.

ON October 4, 1880, I was called to see Mrs. B., who was said to be bleeding profusely. The following brief history I obtained the next day:

Octoroon; æt. 25; married; four children; two miscarriages; menstruated when 15 years of age; had no trouble with any of her labors. First miscarriage (one and one-half month) was after the second child. No bad effects

were left after this accident. The second miscarriage (two months) was after the last child, in August, 1880. Four months previous to this last miscarriage the patient complained of symptoms indicating pressure on the rectum and bladder, dragging pains in the pelvis, pain in back, frequent but unnecessary calls to empty the bladder and rectum, dysmenorrhœa, and metrorrhagia, together with the nervous symptoms of uterine trouble.

I found the woman lying in a mass of coagulated blood, and blood was still flowing from the vagina. The pulse was rapid and weak, tongue pale and flabby, and the body bathed in cold sweat.

On examination, the vagina was found full of clots. These being turned out, the os was found somewhat open. Learning at this time of the last miscarriage, and she having no cause to believe she was pregnant, I passed my finger with some difficulty through the os until it was arrested by a hard resisting body which was attached to the uterine wall. The uterus was retroflexed, and a tumor could readily be felt in the posterior cul-de-sac of the vagina. The woman had little or no pain, but was very nervous about her condition, frequently asking me if there was any danger of death. I gave ergot, ʒi, and gallic acid, gr. xx, and by means of Davidson's syringe injected hot water and vinegar (equal parts) against the os. This I kept up for about ten minutes. The bleeding had stopped soon after using the injection. The vagina was tamponed with strips of linen soaked in vinegar, and a T-bandage applied to retain it. Three bricks were placed under the foot of the bed. Two teaspoonfuls of whisky were given; repeated in twenty minutes. Ergot ʒi, gallic acid gr. x, to be given every three hours through the night, with directions to look for bleeding.

October 5.—Patient slept well after twelve o'clock, and was not disturbed to give medicine. Ate some breakfast, and felt comfortable but weak. The pulse was stronger, and the body warm. The tampon was removed and found to have very little blood on it. Treatment continued, and, as she was still a little nervous, gave opium to quiet her. No more bleeding in the evening, and general condition improved. Satisfied from her history that I was not dealing with threatened abortion, the following afternoon I introduced a large sponge-tent, and allowed it to remain twenty-four hours. The os was well dilated on the following day, and the uterine cavity easily explored. The hard body was found to be a tumor embedded in the posterior wall of the uterus, and seemed to be about as large as a small egg or walnut, was dense and immovable, having no pedicle. I diagnosed a fibroid of the uterus, mural variety. Since that time I have concluded that it must have been submucous, with a broad base.

I decided to try Hildebrandt's treatment by hypodermic injections of ergotin, but, objections being raised, gave fluid extract of ergot by the mouth, ʒi t. d. This was continued for a week, when, symptoms of gastric irritation being complained of, I stopped the ergot for three days, and then again ordered its continuance. At the end of the fourth day of this treatment there was a grayish, bloody, offensive discharge, mixed with shreds of tissue, or, as the attendant said, "meat." Vaginal injections of carbolic acid and water, teaspoonful to the pint, were used twice in the day. The discharge continued until the nineteenth day of treatment, when it ceased. The ergot was continued two days longer. After waiting several days I dilated the os, now firmly contracted, and could find nothing in the original site of the tumor. The cavity of the uterus, which at first measured three and one-half inches, now measured two and three-quarter inches.

I saw this woman one month later, and learned that she never felt better. Chancing to see her a short time since, I found that she suffered no more from painful menstruation, metrorrhagia, or leucorrhœa, but that her periods were regular, and she considered herself a healthy woman.

PHILADELPHIA, 3614 WALNUT STREET.

A CASE OF SEVERE CONCUSSION OF THE BRAIN SIMULATING FRACTURE OF THE BASE OF THE SKULL—RECOVERY.

BY JAS. HENDRIE LLOYD, M.D.,
West Philadelphia.

ON Thanksgiving Day, November 24, 1881, William H., a blacksmith by trade, while engaged in painting the side of a house, fell from a ladder about twenty-five feet to a pavement below, and sustained the following injuries. He struck his head in his descent twice against the house-wall, and landed upon the side of his head and left shoulder. When carried home he was completely unconscious. Blood was running from his nose and left ear, and, as was afterwards found, his left clavicle was broken near its acromial end. He was first seen by the writer, in company with Dr. M. B. Musser, about twenty-four hours after the accident. The brain-symptoms at that time, and for several days, were very grave; unconsciousness continued, though not complete, as the eye became very slightly sensitive; clotted blood was in the nose and left auditory meatus; the pulse was abnormally slow,—about 54; the skin was pale and cold; the pupils dilated. Considering the height from which

the patient fell, the manner and frequency with which he had struck his head, and the severity of the symptoms, it was thought highly probable that a fracture existed at the base of the skull, and a very guarded prognosis was given. It may be observed that but one prominent, though not constant, symptom of fracture was wanting,—the absence of cerebro-spinal fluid from the discharge from the ear.

From the third day the patient's condition began slowly to amend. He regained some degree of consciousness, and his pulse and skin improved; the discharge from his nose and ear, which had been slight after the first day, stopped. He became, however, very restless, and at times delirious; he had much pain in his head, and was at times so unmanageable that no dressing could be kept on his clavicle. The presence of meningitis was thus suggested. On the sixth day there was some convergent strabismus. There was no paralysis, and the patient had control of his bladder and rectum. For about two weeks the case continued with varying prospects. It was seen at last, however, that he was gradually improving: he became more docile, and did not exhibit the petulant and maudlin disposition which for a while had characterized him. In the third week he one day complained of double vision, which was but transient. At the end of a month he was allowed to sit up at times, his nurse had been dismissed, and he has since regained apparently his complete health.

The case was treated with pot. iod. and bromid. and ex. ergot. fluid. internally, and fly-blisters at the forehead and at the base of the skull. The ergot was given at the signs of possible meningitis. Great attention was given also by a trained nurse to keeping the patient quiet. The fractured clavicle has united with slight deformity, owing to the restlessness of the patient during the first two weeks.

This case, which was at first most unpromising, illustrates some points of interest in the diagnosis and prognosis of severe injuries to the skull or its contents. The patient has done so well, after so much damage, that we hope he may also escape the more remote effects, such as abscess, chronic cerebritis, or epileptic seizures, which do undoubtedly come back sometimes to the unfortunate victims of these accidents.

INFLUENCE OF LOCOMOTIVES, ETC., ON MALARIA.

BY W. S. KING,
Surgeon U. S. A.

BELIEF in the existence of malaria and a recognition of its baneful effects are wide-spread. In the selection, by any one, of a residence, when the design is to secure a permanent home, almost the first question asked is the one relating to the presence or absence of malaria in that locality, showing that even the laity are beginning to study the phenomena of malarial poisoning. Everything, therefore, which has an unmistakable influence in limiting its development or lessening the number of persons affected with malarial fever is a matter of interest to all.

My object in offering these considerations at this time is to call the attention of the profession to the possible effect which the arrival and departure of so many locomotives, with their attendant trains, in such great numbers, at all hours of the day and night, in the vicinity of our towns and cities, may have in the dispersion or annihilation of malarial influence. I do not remember to have seen in my reading any allusion to the effect of such agencies on malaria.

Many years ago, while thinking over the subject of malaria and endeavoring to account for the non-occurrence of its effects in localities where every condition seemed to be furnished for the exhibition of its deleterious influence, it was suggested to my mind that possibly their immunity was secured by the means above suggested. The whole matter had escaped my memory, but was recalled whilst I was engaged, a short time since, in selecting a place of residence for my family, some of whom have suffered greatly from frequent attacks of intermittent fever. During my search for a healthy residence my attention was called to West Philadelphia, especially the neighborhood of the New York and Pennsylvania Depot, where several hundred locomotives, with their trains attached, arrive and depart at short intervals during the day and night. To any one acquainted with the locality, it would appear that the propinquity of the Schuylkill River lowlands would offer unusually favorable conditions for the development of malaria. As there is reason to believe

that malaria consists of low organisms, and the putrefaction of vegetable substances furnishes the habitat, how can we explain the exemption from malarial affections in those exposed in any other way than that the miasma is so much diluted, or in some way influenced, as to be harmless? If we consider the continual passing along through the infected districts of heated locomotives, rarefying the air, and by warm upward currents creating a constant atmospheric disturbance, the heat being sufficient to destroy miasmal germs, the currents of air produced by trains moving with great velocity displacing the air, we can be at no loss to account for the constant dissipation of the miasma as it arises from the banks of the river, as well as its immediate dilution by the surrounding pure air rushing in from all directions.

I have written all I designed in support of this theory by barely suggesting it, and will only add that the exemption of that part of Philadelphia in the vicinity I have referred to is a fact fully believed by persons who have long resided there, and so represented by them to others as to cause quite a boom in building, selling, and renting houses in that locality the past summer and winter. I shall be glad if some of the profession who are so situated as to be able themselves to verify or disprove, in some measure at least, the views expressed in this paper, can be induced to give to the public all they may know bearing on this subject. I shall then have accomplished all I desired.

PHILADELPHIA, January, 1882.

A CASE OF MATERNAL IMPRESSIONS.

BY WM. T. TAYLOR, M.D.

IN the November number of the *Philadelphia Medical Times* for 1876 there is a communication on "Maternal Impressions affecting the Fœtus" which I read before the Philadelphia County Medical Society; and I have recently met with a case confirming my views therein expressed.

Mrs. McV. was delivered on November 30, 1881, of a female child, upon whose brow was a nævus or varicose aneurism, which projected out between the eyes to the size of a cherry, and assumed a purplish hue whenever the child cried.

I inquired of the mother if she had been frightened during her pregnancy. She replied, "No," but she told me that *her own mother* had a cancerous tumor on her brow between the eyes, which Dr. Willard Parker, of New York, was treating; and that she had visited her in the early part of her pregnancy, when she was frequently looking at this tumor with painful anxiety, and was "much worried about it."

This certainly had some effect on the unborn babe, or why should this nævus have occurred in that locality? for the babe is perfect in every other respect.

I am removing it by pressure with the half of a leaden bullet.

1324 NORTH FIFTEENTH ST., January, 1882.

NOTES OF HOSPITAL PRACTICE.

UNIVERSITY HOSPITAL.

CLINICAL SERVICE OF JOHN ASHHURST, JR., M.D., PROFESSOR OF CLINICAL SURGERY IN THE UNIVERSITY OF PENNSYLVANIA, DECEMBER 3, 1881.

Reported by WILLIAM H. MORRISON, M.D.

NERVE STRETCHING—STRETCHING OF THE MUSCULO-CUTANEOUS, MEDIAN, ULNAR, INTERNAL CUTANEOUS, LESSER INTERNAL CUTANEOUS, AND MUSCULO-SPIRAL NERVES FOR TRAUMATIC NEURALGIA OF THE FOREARM AND HAND.

GENTLEMEN,—Before stating what I propose to do in the case of this man, who is a patient of Prof. Wood, by whom I have been asked to take charge of him, let me read his history as obtained by the Medical Registrar, Dr. Hughes. T. H., white; age 33; born in Scotland; came to this country in 1868; by occupation a sailor; moderate drinker; uses tobacco moderately; has had gonorrhœa three times; never had syphilis; family history indefinite; has had several slight attacks of rheumatism; otherwise healthy. On January 26, 1881, while walking on deck, he was struck by a heavy sea, which carried him about twenty feet and dashed him against the deck. He was rendered insensible, and remained so for ten minutes. When he regained consciousness he had some pain in the neck and shoulder, which continued steadily for two months. Since then this pain has been better, and now only appears after exertion.

Shortly after the accident the left hand became swollen, and remained so for four months. Two months after the accident the left arm was swollen for three days.

After the accident he noticed that the left eye could not be opened widely. The sight was impaired, but has improved. At the same time he had extreme hyperæsthesia over the left side of the face and trunk. This has grown less marked.

Five months after the injury pains appeared in the forearm and hand. These were of a paroxysmal character, and became very intense. The pain has diminished, but is still severe.

Present condition: slight ptosis and impairment of sight on the left side; some pain in the neck and shoulder after exercise. Paroxysmal dull pain in the left forearm and hand, worse on the back of the hand and in the little finger. It varies in its seat. The muscles of the shoulder, arm, and forearm are wasted and powerless. There is slight sensation in the arm, but none in the forearm or hand. On touching the left side of the face and trunk, he complains of pain in the hand. The pain is aggravated by pressing on a lump at the end of the sternum, and by pressing on the spinous process of the fourth dorsal vertebra.

I intend to-day to perform the operation of nerve-stretching, to try and relieve the neuralgic pain in the left arm.

I have had occasion to perform this operation several times. I once stretched the musculo-spiral nerve above the elbow for traumatic neuralgia, but with only temporary benefit. The pain was entirely relieved for some weeks. It then returned, and I excised a portion of the nerve. The pain did not again return, but there was, of course, paralysis of the muscles supplied by the nerve.

In another instance I stretched the median nerve. This was a case of traumatic neuralgia in a girl, following the introduction of a needle into the hand. Although the needle was removed, severe neuralgic pain followed. She was entirely relieved, there having been no recurrence of the pain, although more than a year has elapsed since the operation.

I have also employed nerve-stretching in a case of tetanus, without, however, doing the least good. In tetanus, when you can localize the lesion and the affected nerve, there is reason to think that the operation may, in a certain proportion of cases, do good. The operation does no harm: even if a motor nerve is stretched, it does not produce paralysis. In the case to which I have alluded, tetanus followed a tooth-wound of the thumb, and although I operated within twenty-four or forty-eight hours, stretching both the median and musculo-spiral nerves, the rapidity of the spasms was not even diminished, and I cannot say that the operation did the least good. The patient died a few hours later. This operation has been practised in idiopathic neuralgia; but it is rather more difficult to understand how it should do good in these cases than in cases of traumatic neuralgia.

The theory of nerve-stretching is, that as a result of an injury, or from other causes, there have been inflammation and adhesion of the nerve-sheath or nerve-fibrils, and that the stretching breaks up these adhesions and thus relieves the nerve-structure from pressure. Ollier and others have operated in cases of neuralgia following fracture and caused by the pressure of callus on a nerve. By cutting away the callus the pressure is removed, and the neuralgia disappears. Just as the removal of the callus relieves the external pressure, so breaking up the interstitial adhesions gives relief in these cases.

The operation has also been employed in locomotor ataxia and other affections of the nervous system, and in certain forms of skin disease, such as pemphigus and senile prurigo.

This is a case in which it seems probable that some benefit may be conferred. The neuralgia is evidently of traumatic origin. As a result of an injury there has occurred what is termed a concussion of the brachial plexus, the lesion being in reality one of laceration and contusion, followed by inflammatory changes.

There is a curious thing in regard to nerve-stretching: it not only acts upon the nerve stretched in both directions (upwards and downwards), but it has a central action, and also an action upon the nerve of the opposite side.

The operation which I purpose doing is not to stretch the brachial plexus itself, but the nerves which come off below the plexus. In order to reach the brachial plexus I should have to make a deep incision above the clavicle, in which situation the operation would be both difficult and dangerous, or I should have to go below the clavicle and cut through the pectoral muscles. I intend to make my incision in the axilla, just inside of the anterior fold,

very much as if I were going to tie the brachial artery just after it ceases to be axillary. I shall stretch the musculo-cutaneous, the median, the ulnar, the internal cutaneous, the lesser internal cutaneous, and the musculo-spiral nerves. I think that we may, by stretching these nerves, produce the same effect as by stretching the brachial plexus itself. We shall thus obtain, I think, a maximum benefit from a minimum injury. In any operation of doubtful result, where you are not certain of doing good, it is a good maxim to do no harm.

Operations of this kind have to be done deliberately, without any attempt at brilliancy. Brilliancy is out of place in operations on the nervous system.

[The operator then carefully dissected out the nerves to be stretched, and raised them on directors. Then, taking them one by one, he first drew them upwards, then downwards, and then, with a broad aneurism needle, he pulled the nerve forward, the amount of force employed being sufficient to lift the arm. In the case of the lesser internal cutaneous, or nerve of Wrisberg (a small nerve), the force employed was not so great.]

The advantage of stretching the nerve is that it does not cause paralysis, which of course always follows excision.

In the cases in which I have stretched the nerve, the pain at the seat of operation has been very intense for several days, sometimes weeks. The pain below is usually relieved at a comparatively early period.

[A drainage-tube was then introduced, the incision closed by the interrupted suture, and an olive-oil dressing applied.

The wound in this case healed readily, without much suffering after the first twenty-four hours. The patient was sent back to Dr. Wood's wards in about two weeks, when he was treated by passing a chemical galvanic current down the arm for two hours a day, the strength of the current being just such as to cause only slight pain. Before this treatment the chief gain in the symptoms seemed to be in the lessening of pain. Two weeks subsequently the muscles of the upper arm could be distinctly acted upon by moderately strong interrupted chemical currents, and the will was capable of producing some little motion of the muscle; the arm was also much easier. The patient states that sometimes, especially in the earlier prolonged use of the electric current, violent pain was present for one or two hours after the *séance*, and the arm would then remain perfectly easy for the twenty-four hours.]

TRANSLATIONS.

Forced Alimentation in Phthisis.—Dr. Dujardin-Beaumetz, in the *Bulletin de Thérapeutique*, defines forced alimentation as "the application of the tube of Faucher to the alimentation of the sick." He employs a tube of at least one centimetre in diameter, of sufficient length to enter the cavity of the stomach, and surmounted by a funnel of a capacity of one litre. Having tried vaseline and glycerin as lubricants, he has discarded them, finding it sufficient to dip the extremity of the tube in lukewarm water before introduction. The nutritive mixture is composed of one hundred and fifty grammes of finely-chopped raw meat, four eggs, with the yellow and white combined, and one litre of milk. This mixture can be varied, according to circumstances, by the addition of sea-salt, cod-liver oil, or the peptones. Thus, when there is no diarrhœa and the patient supports this kind of alimentation well, he introduces three or four teaspoonfuls of cod-liver oil, then three of peptones, followed by the nutritive mixture and a portion of the milk, after which the tube is rinsed out by passing the remainder of the milk through it. When diarrhœa is present, the peptones and cod-liver oil are withheld, and subnitrate of bismuth is added. Dr. Debove employs a mixture somewhat larger in quantity, and containing ten eggs and two hundred grammes of meat, which he introduces in two portions at different times. Dr. Dujardin-Beaumetz, however, makes but one forced introduction daily, and that in the morning, upon an empty stomach, and finds it necessary in some cases of dyspepsia to wash out the stomach with Vichy water first. He gives four cases of phthisis from his wards, in three of which there was but little appetite, vomiting after each fit of coughing, and considerable emaciation, while in the fourth there had been diarrhœa for more than six months. The results were most encouraging. In the first three cases the nausea and febrile symptoms disappeared, the night-sweats ceased, the appetite returned, and weight

increased. In the fourth case the diarrhœa ceased, but emaciation and febrile symptoms persisted. The value of forced alimentation in phthisis seems to lie in the fact that under it the vomiting disappears, the dyspepsia is overcome, and emaciation is checked, while a much larger quantity of food than could otherwise be taken can be introduced in the stomach and digested.

The employment of the tube of Faucher is further suggested in the administration of cod-liver oil in large doses, and other disagreeable medicaments, also in the treatment of such conditions as albuminuria and extreme anæmia, which call for a direct action on the nutrition.—*Journal des Sciences Médicales.*

IODINE IN CROUPOUS PNEUMONIA.—Dr. Riebe, in advocating the employment of iodine internally in the treatment of croupous pneumonia, gives the following comparative table, showing the results of the treatment in the onset of the crisis in a number of cases treated by himself.

Crisis occurred—	Iodine Treatment, 37 cases.	Expectant, 22 cases.
On second day	in 8 per cent.	0 per cent.
" third "	in 16 "	0 "
" fourth "	in 21 "	9 "
" fifth "	in 8 "	9 "
" sixth "	in 11 "	40 "
" seventh "	in 16 "	13 "
" eighth "	in 11 "	18 "
" ninth "	in 5 "	4.5 "
Died	in 2.7 "	4.5 "

According to this table, the inflammatory process was considerably shortened, as under the iodine treatment the crisis occurred in fifty-three per cent. of the cases before the sixth day, while under expectant treatment it occurred in only eighteen per cent. during the same time.—*Deutsche Medicinische Wochenschrift.*

A CURIOUS CASE OF VENOUS DILATATION.—Lindner (*Cbl. f. Chir.*, No. 45, 1881; from *Deutsche Zeitschr. f. Chir.*) gives the case of a man 42 years of age, of a family in which many members had died of apoplexy, and who during the previous two or three months had suffered from a somewhat swollen face, rush of blood to the head, ringing in the right ear, giddiness on stooping, and severe burning in the face. Some days after the first examination, marked cyanosis of the face was observed, particularly on the right side. The veins of the chest were also markedly enlarged and swollen; on the anterior border of the axilla was a convoluted mass of varicose veins; in the right supraclavicular fossa was a tumor the size of a hen's egg, from the upper border of which proceeded the enlarged jugular vein. Pressure upon this non-pulsatile tumor caused it to disappear, the patient experiencing at the same time a marked rushing sound in the ear. The tumor, which could be pushed deep down into the chest, rose again on the removal of pressure. On the left side a similar tumor could be perceived, about one-half the size of that ju t described.

Examination of the heart showed nothing abnormal, and the various other organs seemed to work well. Daily subcutaneous injections of ergot caused the tumors to rapidly disappear. They became flatter and harder, while the subjective symptoms disappeared at the same time. Since a central hindrance to circulation could be excluded, Lindner is inclined to regard the affection as a chronic phlebitis localizing itself in the neighborhood of the valves. The venous walls were so altered thereby that they gave way to the moderate pressure caused by the slight obstruction in the affected valves.

INFLUENCE OF ALCOHOL UPON DIGESTION. — Buchner (*Deutsches Archiv für Klin. Med.*, 1881, Bd. 29, p. 537), as the result of a series of elaborate researches upon this subject, concludes as follows:

1. Alcohol as such, up to the strength of ten per cent., has no influence upon artificial digestion.

2. Added to the amount of twenty per cent., it retards the process of artificial digestion.

3. In a higher percentage it puts an end to the digestive process.

4. Beer, when undiluted, stops the process of artificial digestion entirely; diluted with water it simply hinders it. Red and sweet wine have the same effect, while undiluted white wine simply retards without suspending the digestive process.

5. In the natural process of digestion beer appears to act unfavorably even when taken in small quantities; wine acts in the same way.

6. In disturbed conditions of absorption and secretion of the gastric mucous membrane this effect of alcoholic fluids proceeds even to complete interference with the digestive process.

PHILADELPHIA
MEDICAL TIMES.

PHILADELPHIA, FEBRUARY 11, 1882.

EDITORIAL.

TWO SUBSTITUTES FOR ANTISEPTIC SPRAY.

THE Lister method of treating wounds involves the use of so much machinery and time that the attention of all persons practising major and minor surgery may well be called at present to two substances as possible substitutes for the carbolic spray,—to one, on account of the lavish use and praise of it which is now the fashion in Germany; to the other, because it seems to offer many advantages to him who would practise antiseptic surgery without the extra labor it has hitherto involved. The first of these drugs is iodoform; the second, borax. Iodoform has long been freely used as an application to venereal and other ulcerations in this country; but to-day in Germany ulcers foul and sweet, abscesses cold and hot, wounds ancient and fresh, are being treated with it in a way that has well been characterized by a prominent London medical journal as "almost reckless." The mode of application is various. Sometimes the iodoform is sprinkled upon the surface and kept in position by means of a bandage. In one reported case of removal of abdominal tumor, it was put in the cavity, and the wound closed up, the patient rapidly convalescing. Again, it is introduced in the form of pencils made with cacao butter; or cotton-wool or patent lint is saturated with an ethereal solution of the iodoform. Whatever the mode of application, the idea is to apply the iodoform in large quantities, and close the dressing for some days in such a way that the contact of the drug with the surface shall be maintained.

When it is known that ounces of the iodoform have thus been shut up in scooped-out or other carious cavities, and that the practice has found abundant imitation, it does not seem strange that several cases of fatal poisoning have been reported. In one instance, after an extended resection of the elbow on account of fungous synovitis, with intra-muscular abscesses, in a man 57 years of age, the cavity was packed with about two thousand grains of iodoform. The patient died on the fifth evening in deep coma, with symptoms of pulmonary œdema. The only anomalies of consequence revealed by the post-mortem were fatty degeneration of the heart, kidneys, and liver. A second case died under similar circumstances, with the same symptoms and lesions.

A. Höyges has found that in dogs and cats toxic doses of iodoform produce deep sleep, loss of reflex activity, death from paralytic asphyxia, and, as revealed by post-mortem examination, wide-spread fatty degeneration. It will be seen that these symptoms and lesions are those which occurred in Dr. Henry's cases: so that the fatal results were no doubt directly due to the iodoform. This unfortunate slaughter ought not to prevent the careful trial of iodoform as an antiseptic; but the experiments of Miculicz—an advocate of iodoform as an antiseptic—are calculated to throw some doubt upon the value of the drug. He mixed the powder with samples of various putrescible fluids, and stirred them up daily, and yet found that fermentative changes occurred unless a very large proportion of the drug was used.

It is probable that iodoform is changed to some extent upon the surface of the body into iodine, and as such greatly stimulates the part, since Höyges has found that in the body this alteration takes place after absorption, so that iodine is to be found in the urine of the patient who is taking iodoform.

An antiseptic remedy which has not as yet produced anywhere a *furore* compara-

ble to that which iodoform has caused in Germany, but which seems to promise much, is borax. The Teutonic nostril may tolerate, or even revel in, the peculiar odor of iodoform, but the American nasal organ revolts. So far as our experience goes, all attempts to deodorize iodoform end in failure: odors disappear, but the iodoform stench is eternal. A few weeks since, we received from a prominent pharmacist a phial containing deodorized iodoform, sent as a crowning triumph and proof of supernal skill. In a weak moment we lifted the cork, for an instant only, and an airing of many hours was required to clear the office of the stench. Borax has no odor, in dose of three drachms by the mouth produces no sensible symptoms, unless it be gastric irritation, and has been given very freely to the lower mammals without causing serious results. According to the experiments of Dumas and Schnatzles, 0.75 per cent. of boracic acid is sufficient to prevent the production of bacteria in exposed animal liquids. Dr. William Greene, in New England, has made extensive use of the borax in practical surgery with asserted extraordinary success; and we would strongly urge upon such of our readers as have opportunity the trial of rarely-disturbed dry dressings with powdered borax freely used.

ANTI-VACCINATION.

MR. HENRY BERGH is a violent anti-vivisectionist and an ardent homœopath, and is therefore almost of necessity a man with a very impulsive heart and a very feeble intellect; but what excuse the editor of the *North American Review* has for printing his recent diatribe against vaccination we know not, unless he considered it worth while to sacrifice to an itching desire for notoriety the reputation of his journal as a vehicle for sober sense, and also the lives of some foolish readers. To amuse our readers, and to show what kind of intellect dwells in the cranium of Mr. Bergh, we print the following extracts:

. . . "That hideous monstrosity, vaccination, was first introduced to the public on the 14th of May, 1796, by Dr. Edward Jenner, who originated it. . . .

"In the period of less than one hundred years that has elapsed since the introduction of this practice, millions upon millions of sound and healthy human beings have been inoculated with the most loathsome pestilence, doomed to carry to the grave bodies wasted by consumption or marred and deformed by scrofula, cancer, and innumerable other ills. What is worse, they have transmitted these diseases to posterity. . . .

"Now, the purpose of the writer is not only to convince the reader of the truth of this admission, but to go farther, and to prove that vaccination never has afforded, and never can afford, immunity from smallpox, and that the unnatural practices of so-called scientific physicians have simply resulted in changing the ruby stream of life into a filthy current, in comparison with which the foulest ditch-water is pure. . .

"According to Dr. Spinzig, the eruptive character of smallpox is the outward manifestation of a process of decomposition of the blood, produced by a disproportionate quantity of urea. Hence this disease is, in fact, the effect of the reaction of urea on the blood. Normal blood, as we learn from the exhaustive experiments made by Goze and Feltz, contains not more than from .01 to .02 per cent. of urea, while in variolous blood the percentage is .08 or more. The specific action of urea on the blood consists in a deoxidation of the corpuscles. Hence smallpox is a phase of blood-poisoning. . . .

"The writer is himself an example of the utter futility of vaccination. In his youth he passed successfully through the loathsome process. Nevertheless, some years afterwards, he presented one of the most clearly defined cases of varioloid. According to Mr. William Jebb, of London, in his statement presented to the American Anti-Vaccination League, eighty per cent. of the mortality from smallpox comes from vaccinated cases.

"Thus, though it is proved by statistics that the loathsome practice is void even of a mitigating effect upon the progress of smallpox, nevertheless the dreadful work goes on of wilfully implanting in the healthy bodies of human beings the germs of disease, from which are developed scrofula, consumption, cancer, and by which the very continuance of our race on the earth is imperilled. Doubtless, in the estimation of that large portion of the public who are, through their intellectual sloth, the dupes of the medical profession, the writer's words will pass for the ravings of a lunatic when he affirms that the human race is gradually rotting away by reason of this deadly practice of vaccination. But so it is; and the process of decay is accelerated by the consumption of flesh that has been rendered unfit for human food, and actually poisonous, by the barbarous and unnatural treatment to which animals are subjected. . . .

"Prof. Simonds, of the Royal Veterinary College, Camden Town, England, states that in the course of his long experience he never saw a case of cowpox. Who ever heard, he asks, of bullpox? And if there be no bullpox, and yet cowpox really exists, it is an anomaly among zymotic diseases; for no other disease of that class is limited to one sex of a species."

DRS. H. C. WOOD AND FORMAD desire to know of the existence of an epidemic of malignant diphtheria, in order that

they may continue their research upon the nature of the diphtheritic poison. Dr. Formad will go to any locality within eight hundred miles of Philadelphia. Letters may be directed to the University of Pennsylvania.

LEADING ARTICLES.

APHASIA.

As early as the beginning of the present century attempts were made to locate the speech-centre in some particular part of the brain, and while Gall* thought, from several cases in which he had made a post-mortem, that its seat was in the hemispheres of the cerebrum, Bouilland,† and, later, Marc Dax,‡ declared that disturbances of speech were remarkably often connected with lesions of the *left* hemisphere, and that it was there that "the memory of words" seemed to reside. But Broca§ was the first to locate its seat more precisely, and he not only demonstrated that the speech-centre was situated in the left third frontal convolution, but he contended also that the faculty of speech was one gradually acquired, and that the gray matter presiding over it was brought step by step to a full development on the *left* side in *right*-handed persons. Of the latter fact one case especially convinced him, which he has published in the work quoted,—that of a left-handed epileptic female, in whom it was discovered, after death, that the left frontal and median lobes were totally absent, but the right hemisphere normally developed. Since then many careful investigators have made further researches, and while Ferrier,‖ Hitzig,¶ and others endeavored to localize anatomically more and more precisely this function of the brain, Kussmaul** looked at it rather from a philosophical stand-point, and tried to establish a minute subdivision and classification of all possible kinds of disturbance of speech, without always, however, the desirable pathological proof. When studying this subject, we must not forget the difficulties which the investigator has to encounter. Experiments on animals are here necessarily out of the question; only by quasi-exclusion could they be of any assistance; and such morbid lesions in man are so rarely sufficiently circumscribed that but a very gradual advance can be possible in our knowledge of the precise seat of the memory of words. It is only by a skilful analysis of cases of which an exact history of the symptoms has been recorded, and of the very localized lesions of which a minute examination has been made, that we can slowly progress in this direction; and such cases are rare. These difficulties form one of the causes why aphasia has been so much the subject of philosophical theories. But, after long and patient labor, Wernicke†† has brought some order again into the chaos; and, while giving in the following mainly the result of his researches, we may say that we describe about all that at present is actually known of the seat of the speech-centre, or, in one word, of aphasia, and the truth of which has been sufficiently proven by pathological cases.

There are two centres in the brain for the function of speech, situated both, in right-handed persons, in the left hemisphere of the cerebrum. Of course we do not understand here by "speech" the articulation, the mere sound of the voice as produced by the different muscles of the larynx and buccal cavity, etc., the nervous centre for which resides in the olivary bodies of the medulla oblongata, and which, by training, may to a certain extent even be developed in animals (parrots, etc.); we mean the centre of language, the memory of words, that centre which employs the one for articulation simply as means for executing its orders. For this speech-centre there exist, as mentioned, two centres in the brain. First, the *sensory*, situated in the first temporal convolution, the cortical end of the acoustic paths,—the depository of words, as they are communicated to us by the spoken language, by talking. Deep into the white mass connected with this gyrus the origin of fibres of the auditory nerve has been traced. From this centre an associating path, the island of Reil, leads to Broca's

* Gall et Spurzheim, Anat. et Physiol. du Système Nerveux, Paris, 1810-19.

† Traité de l'Encéphalite, Paris, 1825, and in later papers of the same writer.

‡ Lésions de la Moitié gauche de l'Encéphale, etc., 1836.

§ Sur le Siége de la Faculté de Langage. Bull. de la Soc. Anat., 1861.

‖ Localization of Diseases of the Brain, London, 1879.

¶ Ueber d. heutigen Stand d. Frage v. d. Localisation im Grossgehirn, Volkmann's Klin.

** Kussmaul, The Disturbances of Speech, Ziemssen's Cyclopædia, 1880, Vortr., No. 112.

†† Lehrbuch der Gehirnkrankheiten, Cassel, 1881.

centre, formerly alone taken into consideration, the lower third frontal convolution, which governs in the widest sense of the word the whole *motor* part of expression by words of speech.

Based upon the foregoing, Wernicke assumes four different forms of aphasia, in one of which every possible kind of morbid disturbance of speech must find its place:

a. Motor Aphasia, or Aphemia.—Here the motor centre is diseased. While the mobility of the muscles of speech is perfectly intact, patients are either not at all able to talk, or can say only a few syllables or words, but they understand everything spoken to them.

b. Conduction Aphasia.—Here the associating path is interrupted, the island of Reil diseased. The memory of words is preserved, understanding is perfect, but, while talking, wrong words are often used; certain words are mistaken for others.

c. Sensory Aphasia—Kussmaul's Word-Deafness.—The seat of the lesion here is the left first temporal convolution. The memory of words is intact, but words are frequently mistaken for others, and, while the faculty of hearing is perfectly preserved, the speech is not understood: *i.e.*, while the patient is fully able to hear the slightest noise, the sound of the voice, the words spoken to him have lost their significance, for his brain cannot perceive their meaning.

d. Total Aphasia.—Loss of all functions, with destruction of both centres.

To one of these forms every case of aphasia will necessarily have to belong. Concerning agraphia and alexia we are forced to assume other centres in intimate connection with the two main centres named above, each perhaps forming a special part of one of the latter. In the first case (agraphia) there must exist, with full preservation of the common mobility of the right arm and hand, an affection of the motor centre for the combination of the special movement of writing, while in the latter (alexia) we will have, without disturbance of common vision, disease of the sensory centre which acts as the receptacle for the image of the figures of the alphabet, etc. The latter centre will undoubtedly be found in connection with the cortical end of the optic nerve. That the main centres must also be closely connected with the centre for the tactile sense and the cortical motor centre is proved by the fact that blind persons are able to write and read, and that born deaf-mutes not only learn to read and write but even to talk without being able to hear. There are deaf-mutes who themselves prove the connection of the optical and tactile paths with the speech-centre, because there are some deaf-mutes, as in the institution in Berlin, for instance, who understand the words spoken by simply looking at the lips of the speaker, and others who are able to do so by applying their hands either to the cheek or the back of the chest of the person talking. But as it is necessary to keep a very careful record of every symptom of such cases, and as the most minute dissections of them have to be made after death,—and how rare is it for such cases to fall into the hands of physicians who are able and have the time at their command to fulfil both conditions!—many years must elapse ere we may progress further in this direction and answer all the questions referred to.

The different forms of aphasia—the inability of the centres to perform their functions—can be brought about by all kinds of morbid processes. These affections may be only temporary in their character: in such case we will find their cause mostly in congestion, or in insufficient nutrition, or in an insufficient quantity of blood, as, for instance, in that form of aphasia which we observe in convalescents from grave diseases: here the prognosis is generally a favorable one. The same may be said of hysteria, epilepsy, and syphilis (here, however, only if the degeneration of the arteries is recognized and treated early enough) when acting as causes of aphasia. Cases due to softening of the brain or to abscess are, if not rapidly fatal, always of long duration, chronic, very little amenable to improvement, and usually connected with other symptoms on account of the further extension of the morbid process. Embolism in the branches of the left arteria fossæ Sylviæ is a frequent cause, and in such cases aphasia and coma, without disturbance of motion, are the characteristic consequences of this disturbance of circulation. As an excellent illustration of temporary aphasia induced by passing disturbance of circulation, we will narrate the following case, which some years ago happened in the family of and was attended by the writer. A mentally very bright and physically well-developed girl, twelve

years of age, with no hereditary and no constitutional taint whatever, and whose nervous system also seemed in every respect well balanced, went, on a warm day in June, to a strawberry-festival in Fairmount Park. There, being left for a short time without supervision, she indulged with other young girls in the dangerous play of rope-jumping. Not to let her mother observe her excitement, she dipped her handkerchief into the cold water of a spring near by, and while heated applied it to her burning face. Shortly after she was brought in an unconscious state to her mother. While unconscious, the muscles of the right side of her face and of her right arm were in a continuous convulsive movement. Unconsciousness lasted about ten minutes; but on awakening out of the coma she presented the following remarkable symptoms. Temperature increased one degree (surface temperature of the left front part of the head not being taken); physical health seemingly otherwise not disturbed. But her face had the expression of an idiot: she evidently did not understand what was said to her, and could neither speak, read, nor write. She put her tongue out without difficulty, and there did not seem to be the slightest disturbance of motion or sensation. But she showed a ravenous appetite, and would eat raw potatoes and almost anything she could put her hands on, and show astonishment if prevented. Leeches were applied to her left temple, followed by the application of a bladder containing ice. About four hours after the attack—the face began gradually to lose its idiotic expression, and the patient evidently commenced to understand what was said to her. The following day she had so far improved that she again appeared perfectly natural in her actions, etc., but she could not talk, read, or write. I then proposed to take a first reader and commence spelling over again. It was remarkable to observe the rapid progress she made. Suffice it to say that within five or six days she had almost perfectly relearned the use of the words, and she could talk, read, and write nearly as well as formerly. But it was clear that she had to learn every word again before she was able to make use of it, and, though the reawakening of the faculty was a remarkably quick one, the fact of the memory of words having been temporarily lost was indisputable. No symptom whatever since has reminded the patient of this attack of passing congestion.

In conclusion, we may add that from the special form of an aphasia other diagnoses may be made also, as a case of Senator* proves, where he was able to locate an abscess at its exact seat in the left frontal lobe from the aphasic symptoms alone. But sometimes the lesion is in the white conducting and not in the cortical gray matter. Such are the cases of which it has been reported that, notwithstanding aphasic symptoms, no lesion had been found, because the convolutions alone had been examined. Considering the great difficulty of these examinations, however, such mistakes are excusable and cannot always be avoided.

HUGO ENGEL.

CONTAGION OF TUBERCULOSIS.

M. TOUSSAINT, Veterinary Professor of Physiology at Toulouse, acknowledges that lesions of a tuberculous appearance may follow the introduction of a foreign body—as a rag—in an animal. But this tuberculosis is "false." It is not specific; it is not susceptible of transmission, like the true, by inoculation.

The contagion consists rather in an anatomical element than in a parasite like that of anthrax, chicken-cholera, and septicæmia.

He bases his results upon two hundred and twenty experiments. Animals were selected in which tuberculosis is developed with the most surety and in the least time,—rabbits, pigs, and cats. The first is usually chosen, for the same reason, for the experiments in anthrax, although the disease rarely is met with spontaneously in these animals. Tuberculosis kills the pig as surely as anthrax the rabbit. He believes the susceptibility of the human species to be greater; and if children, or even adults, could be inoculated, few would escape.

Are the rabbit and pig more susceptible to tuberculosis than man? A malady which kills one-fifth of a species is indeed a malady of such species. Tuberculosis is a malady of man; and since it exists in the form of germs in a large number of foods that we eat daily, is it too bold to say that

* Zur Diagnostik der Hirnerkrankungen, Berlin. Klin. Wochenschrift, 1879.

conditions of hygiene sufficient to prevent this enormous mortality should be exacted? Tuberculosis in man is the same as in cattle, and, when inoculated, produces identical lesions, capable of being transmitted to other animals, and reproducing itself in constantly the same form. It showed identical characters whether he produced it by giving in food or by inoculation into the blood. Numerous pathologists assert that they produce exactly similar lesions by inoculation of inert substances; but this tuberculosis, given so easily, cannot be reproduced by the inoculation of tubercles so obtained.

The histological lesions by which it was believed tuberculosis could be characterized are not sufficient. A true tuberculosis, capable of being inoculated indefinitely, cannot be determined by the lesions alone. The tuberculosis called experimental is a thing artificial. True tuberculosis, whether taken from man, cattle, pigs, or rabbits, is capable of reproduction in an indefinite series, constantly with absolutely identical characters. Moreover, it becomes more energetic and its course more rapid the more often it is inoculated.

In numerous series of experiments it required four to five months for tuberculosis to kill the first animals; the fifth died in two months. General infection taking place in thirty-five days, animals inoculated from one killed in the first series will often die before those of the former. Especially by tuberculosis produced by cultivation is the augmentation of virulence demonstrated.

The serum from a caseous ganglion of a cat dead from cultivated tuberculosis was inoculated in six rabbits and a pig. The latter died in fifty-seven days, and one rabbit in sixty-eight. At this time the animals of the fifth series are much more sick than those of the third.

The fifth cultivation of tuberculosis is much more abundant and rapid than the first, and the tenth than the fifth.

R. S. HUIDEKOPER, M.D.

SINCE 1867 no fewer than 2800 houses in Edinburgh that were pronounced unfit to live in have been pulled down; more than $2,500,000 was at the same time spent in city improvements. The result of this on the death-rate is interesting and instructive. In 1863 it was 26 in a thousand; now it is 20 in a thousand.

CORRESPONDENCE.

LONDON LETTER.

THE concluding remarks of my last letter suggest a topic for this epistle which is not without interest. The patient who illustrated so brilliantly the good effects of the addition of strychnia to digitalis, where the latter alone disagreed, has been gathered to his fathers. After ten days of most gratifying progress, he had further congestion of the lungs, which soon turned the direction from upwards to downwards. Every bad indication returned, and in a few more days the battle was over. So soon as the new trouble was engrafted upon the pre-existing embarrassment in the respiratory organs, the breathing became more rapid, as a matter of course; the veins became more engorged, and with that the bulk of urine fell; albumen reappeared, and the œdema in the legs mounted. Finally the inevitable death from exhaustion of the respiratory centre followed. Now, this untoward termination to a case promising so well suggests some reflections not altogether of the pleasantest character. To find cases of the greatest clinical and therapeutic interest suddenly changing their aspect, and from a bright, cheery outlook passing into the gloom of the tomb, reflects upon the treatment of such cases in a sinister manner. It is an unsatisfactory fact that so many cases of grave organic mischief will rally so promisingly and yet fail to fulfil the promise so deplorably. Against this can be placed the opposite fact of a number maintaining their ground and improving steadily under almost precisely similar circumstances and under identical measures. The point of interest lies in ascertaining in what the difference consists. To this, I think, an answer may be given which is not devoid of interest. Much lies in the directions given; more in how thoroughly they are carried out. Acquaintance with sickness, with the requirements of sick persons, does not fall to the lot of all. Fortunately for them, many persons have had no necessity to become familiar with such matters. But such ignorance is often a dire misfortune when the time of trial comes. The sick person's relations are wishful beyond expression to do all that lies in their power for the stricken one. They do not lack zeal, —indeed, are full of it,—but they are lamentably deficient in the requisite knowledge. It is as if the crew of a ship abandoned it, and the vessel was left to the passengers to do what they could with the craft. There might be a few of them familiar with seamanship; and, if so, all goes fairly well. But suppose such is not the case: what sort of efforts would these unskilled sailors make? Why, in all human probability, a whole series of blunders, —blunders which they might or might not ever discover. If discovered, and seen to be

blunders, they might be rectified. If not discovered, why, of course nothing could be done. Just the same with an ordinary family when one of their members is stricken down by acute disease or by an accident. They are all eager to be useful, but their willingness, unfortunately, is "unskilled labor." The training which experience alone can give is lacking: their well-meant attempts may become simply murderous. Such volunteers will stimulate the fever patient while the pyrexia is running high, instead of waiting for the defervescence, when stimulants may be essential to establishment of convalescence, just as in earlier life in general practice it was common in labors, and especially in primiparæ, when the first stage was progressing slowly, to find some well-intentioned but foolish neighbor taking every opportunity of giving the patient alcohol in a cup of tea, encouraging her to make voluntary efforts at a time when such efforts were useless, with the result that so much of the body-force was thrown away, and so was not available when the time for voluntary effort to be useful arrived, and consequently the case had to be terminated by the forceps. Of course such a busybody is beyond the reach of arguments or anything based on common sense, and is equally not to be taught anything by the lessons of experience, which are simply thrown away upon a person of this kind. Such is "the ignorance which vaunteth itself as knowledge;" and a very troublesome factor it is in all calculations in life. Or some one chooses to question the wisdom of a certain line of management advised and acted upon in the interests of the patient, and will have it modified. Of course persistence, if sufficiently followed out, usually gets its own way, as it did with the unjust judge, and attains results far different from what are anticipated. As an instance in point, I may refer to a case which was recently under my own care.

A clergyman of great earnestness and energy presented himself some nine months ago with very decided bulging of the aorta on both sides, extending along the carotids somewhat. The dilated aorta could be felt distinctly pulsating away at the sternal notch; there was aortic regurgitation, with an hypertrophied but not yet massive ventricle. The condition was undoubtedly a serious one. The age was fifty-five, and the arteries were free from any tendency to atheroma. There was also a splendid family history; consequently there seemed a prospect of inducing a restoration of the aortic walls to something like their normal size, if the blood-pressure within them could be reduced. If this could be achieved, and the distending force of the blood-current limited, then the natural resilience of the elastic arterial wall might cause much reduction of the distention. To attain this was to do away with any risk of rupture of the aneurismal walls. Consequently absolute rest was insisted upon, and a dietary which contained little albuminoid matter was carefully laid down, in accordance with the observation of the late Prof. Parkes. A little iodide of potassium and sulphate of soda were prescribed. This line was followed strictly, with very satisfactory results. The pressure of the dilated aortic arch upon the recurrent laryngeal nerve gave rise to much troublesome cough. This was quickly affected by the treatment. The tension within the dilated aorta was reduced, and with it the pressure on the nerve. The patient and his friends were delighted. Soon a distinct reduction in the bulging at the root of the neck on each side was to be observed; the aortic pulsations could no longer be felt by the finger-tip inserted in the sternal notch.

So far, so good. The patient and his wife were unable to express their gratitude for the improvement so brought about. He had been told by one of our greatest physicians that he must never think of preaching again. Yet he did preach again. On the left side the pulsation had all but disappeared.

Now for the other side of the picture. Being a healthy, vigorous man in every other respect except these few inches of the aorta and its root, the regimen was distasteful to the subjective sensations. When the brain was more freely flooded with blood, he felt "better," more vigorous, more endowed with a sense of energy. I explained to him repeatedly how being "kept low" was the very essence of the treatment. When the fear of death at an early period dominated him and his wife, they were obedient and followed out a plan whose good effects were unmistakable; they were grateful,—would do anything they were told; but when the improvement became pronounced and the immediate danger of death was obviated, their mental attitude changed. Might not the patient have a more liberal dietary? I reiterated my reasons for pursuing the line that had been adopted. A week or two more, the couple appeared again. The lady tried hard to pin me down to a definite statement about the question of preaching, but without explaining why she was so persistent. It was clear she had some game on, and would not show her hand. When the *ruse* failed, out came her grievance. Might not her husband have a more liberal dietary, —"something to keep him up?" Not with my sanction, I explained. My views on dietary were so peculiar, she observed. On being asked if they had not been attended with good results in the present case, she admitted they had; for, of course, the results were so patent no denial was possible. But she was evidently determined to have her own way, and I was equally determined to let her have her head. The case had won me no little credit; but its future progress was clearly more important to them than to me. Further, it is no part of my creed or practice to insist

unduly upon my advice being followed. It is clearly one's duty to give the best advice one can; but there is no call upon one to see that it is followed,—to force it upon the patient. To take it is clearly the business of the patients and their friends. If after an experience of no doubtful character they choose deliberately to act upon their own responsibility, that is their business. A full explanation had been given again and again. So they departed,—she with the erect carriage of a female who was influenced by convictions; he ruefully, as if not equally under a sustaining conviction. What the result is has, so far, not been divulged to me. There is no moral doubt that, with the best intentions in the world, the devoted wife is doing her best to increase the blood-pressure within that impaired aortic arch, by feeding him upon sustaining victuals, with the immediate result of his feeling better for the time; for the increased blood-pressure fills the cerebral arteries and floods the brain. But the result is not one difficult to calculate. The aorta will soon yield again, and will ultimately rupture, just as an old boiler bursts when the pressure of the steam within it is high enough. Probably when some irretrievable mischief has been wrought, the good lady will return to me in an agony of contrition and remorse, when a sense of blood-guiltiness forces itself upon her as the result of her wilfulness. Possibly enough, too, some practitioner of antiquated views may be aiding and abetting her efforts to blow up the arterial walls by giving him digitalis, on the obsolete view of its being a cardiac sedative. Anyhow, a promising case is probably being spoiled, and a very valuable life being abbreviated unnecessarily,—because why? Because some officious individuals have been volunteering pernicious advice by talking about what they do not understand. And as my directions about the dietary were received with hesitation and acted upon somewhat unwillingly, the seed fell on ground ready to receive it. So much the worse for the patient, in all probability.

This is somewhat a divergence from the exact subject-matter of this letter, and yet not without some bearing thereupon,—viz., when the danger-promontory has been rounded successfully, then some one wants to take the tiller out of the hand of the pilot, or perhaps, thinking danger past, wishes to show his—or more probably her—cleverness. At other times, however, there is no such desire; but the carefulness impressed by the impending danger of death is relaxed, maybe unconsciously, in a sense of waxing security which leads to untoward results. This is the more disastrous in cases where the vital powers are undermined by well-established organic disease which pares down the margin on each side of the normal line, within which the health may oscillate without death necessarily following. Unwitting of this, something is done or permitted which would be devoid of any sinister influence upon a healthy person, but which is potent for evil in those who are the subjects of grave organic disease. When the vessels of the pulmonic circulation—which are large, compared with other capillaries in the body—are already distended by a block at the mitral orifice, cold seems readily to produce congestion of the bases of the lungs. Already the respiration has been embarrassed by the excess of blood in the lungs, and the thoracic space is diminished by so much; and this addition, little felt under other circumstances, is now very serious,—approaching that last straw which broke the camel's back. There is no reserve of strength to meet the new difficulty, all the body-reserves having been called out to meet the existing demand. It is like two contending armies, one of which has called out all its reserves, while the other has its reserves in hand: victory hangs in the balance; the reserves are called in, and settle the conflict. If the other side had also had reserves available to meet the new factor, then the result might have been otherwise. So in the struggle with disease. If the patient possess a reserve of force, some new complication may be successfully withstood; if this have already been called into action, there is no force available to meet the new element, and consequently the battle is lost. Several instances have come under my notice recently in men who commanded one's respect for their character, as well as were nice patients to be brought into contact with, whose deaths have impressed me much. One was a man who had many excellent qualities, but who had taken a great deal of alcohol in excess of what was good for him. His legs were swollen, his liver was enlarged, and his heart was dilated. The heart was badly nourished, because the liver failed to elaborate the albuminoid matters of the food, and the urine was laden with lithates. He improved under treatment steadily and satisfactorily, until his only complaint was that he "could not take a four-mile walk." Despite the most careful reiterated instructions as to taking care of himself, this patient last spring stood about watching the painters decorate his house. The consequence was that pneumonia of the right lower lobe followed. The old symptoms began to return; they deepened in gravity; the block in the pulmonary circulation was felt in the liver, which again increased in size; the venous engorgement lessened the renal secretion, while the œdema returned and mounted. The progress was once more downward, and this time everything failed to arrest the descent. The vigorous system struggled grandly in a losing fight, and death was occasioned by a clot from an inflamed vein plugging the pulmonary artery. With proper care and due attention to orders, that patient ought to have been living still.

Then, again, another case of decided "heart-

starvation," where the symptoms of the fatty heart were closely simulated. Under appropriate treatment and a carefully-regulated dietary, this patient had regained much vigor, and could get about capitally without much shortness of breath on moderate exertion. He changed his residence into a growing and fashionable suburb. Unfortunately, the drains were in a very indifferent condition, and the smell from them was perceptible. The other inmates of the house were upset. He was confined to bed. Then came one or two close, sultry days. The effluvium overpowered him. He was sick, felt prostrated; yet his pulse kept up, and the heart never faltered. He bade his wife "good-night," as usual, and fell into a calm sleep. In an hour she was awakened by his struggles. He was black in the face and choking, evidently from a clot forming in the heart. Before she had time to summon assistance, he was dead. Now, here the patient, when doing very satisfactorily indeed, was killed by drains. What only made the other and strong members of the family feel indisposed was fatal to him. Why? Because his powers were all but exhausted. He possessed no reserves of body-force to meet the new demand, and succumbed. Had he not been subjected to this additional demand upon him, he might have gone on for a considerable period, an invalid, truly, but still with much to live for.

The contemplation of these various cases, the natural feeling of chagrin at failure, heightened by the personal feeling of respect for the individuals, have recently caused me to feel very keenly that the subject of the management of convalescence is one which must occupy a definite space in our text-books, and be generally recognized as important. Certainly in the next edition of my "Practitioner's Hand-Book of Treatment" a chapter will be devoted thereto, in the conviction that many valuable lives are closed somewhat prematurely by some oversight of imprudence during the convalescence which follows upon some severe illness; because the fact is not fully recognized that here life hangs by a slender thread, readily snapped by what would scarcely be felt by persons in health.

J. MILNER FOTHERGILL.

PROCEEDINGS OF SOCIETIES.

SOCIETY FOR MEDICAL IMPROVEMENT, BOSTON.

CASES OF CONTRACTION OF THE HIP-JOINT.

DR. E. H. BRADFORD read a paper on this subject, in which he said, "It has been abundantly proved in surgical practice that obstinate flexion of the femur can be corrected by osteotomy, by osteoclasis, by *brisement forcé;* in certain cases by tenotomy, followed by gradual or immediate straightening. It is also known that in the early stage of hip disease, before the tissues have become contracted, simple rest in bed will allow the limb to correct itself, or, under an anæsthetic, the limb can easily be placed in position."

After the disease has lasted for some time, a contraction, which has been aptly termed "adapted shortening," takes place; and under anæsthesia the limb cannot be replaced by force alone. "In one cadaver he had an opportunity of examining a contraction of this sort, and found that perfect correction could not be attained (even though no bony union nor firm fibrous adhesions existed) even after the skin was torn and some of the muscles were divided.

"As is well known, the acetabulum becomes widened and the head of the femur absorbed under the reflex muscular pressure, which crowds the femur backwards and upwards, there being no muscle to pull the limb downwards. This produces a position of pseudo-dislocation, which, with contraction of adjacent tissues, constitutes the deformity."

Dr. Bradford then cited cases in which treatment did not include strictly operative interference. Of these, two are here reproduced.

R. W., 6 years old; parentage healthy; no history of previous illness; no phthisis in the family; previous to hip-attack boy had a slight fall. Hip-trouble first noticed in summer of 1880. Was treated by various regular physicians. During the autumn was three months under the care of Regina Dal Cin, the Italian bone-setter, who poulticed the limb and pulled it by hand. The mother thought the boy improved, the flexed limb becoming less so. A few months later, however, two abscesses formed. These were incised by family physician. They discharged for several months, then the sinuses healed. The limb again began to "draw up," and by September 6, 1881, the thigh was flexed at a right angle to the axis of sacrum. No swelling nor tenderness about hip. Head of trochanter was not above Nélaton's line. Any attempt at extension of thigh caused arching of lumbar spine. Patient suffered no pain. Limb was but slightly adducted. The boy was etherized and limb forcibly pulled. Tenotomy was not done. But little was gained in this way. An extension splint was applied, leg being kept elevated from plane of bed to a degree nearly equal to that of the deformity. Folded pillow was placed under knee, and extension by weight and pulley (seven pounds) attached to end of splint. Patient quite restless night following operation. Complained of pain, referred to knee. Slight muscular twitching noticed when splint was removed, followed by pain, also referred to knee. This lasted but twenty-four hours. At the end of three days limb was within twenty degrees of axis of body. At the end of a week leg had

been brought into line with axis of body. Boy was allowed to rise and go about with crutches, and elevated shoe applied to sound foot, wearing extension splint on affected limb. No swelling of hip, tenderness, heat, nor redness resulted, and patient remained in all ways as well as before the stretching. At present date, four months later, there is complete absence of deformity; no difference in length of limbs; boy able to stand on affected limb, but, by way of protection against jar or possible recurrence of deformity, is directed to wear the splint.

E. A., young woman of 22 years. First suffered from hip-disease at 3 years of age, trouble being of pronounced type. Abscesses formed, and their sinuses discharged for many years. At beginning of later treatment thigh was flexed at an angle of 70° with axis of sacrum. The arm somewhat adducted. Trochanter two inches above Nélaton's line. Cicatrices of two sinuses observed about hip, and no motion was to be detected. On this limb patient used a shoe raised five inches, and even with this could barely touch floor with heel. Deformity so marked that it appeared improbable that any benefit could be derived from non-operative treatment, and nothing would have been attempted but for the confidence of Dr. C. P. Putnam that the conditions could be improved.

Patient was placed in bed, and a ham-splint, secured by means of adhesive plaster and silicate bandage, applied to prevent flexion of knee. After patient had become accustomed to this position, she was allowed, a few days later, to go about freely, using crutches. Neither traction nor friction was used, correction of deformity being left entirely to weight of the limb. Naturally, this power acted only while patient was standing. The limb, therefore, was much of the time without any correcting force.

At the end of four months the ham-splint was replaced by a removable splint, which answered same purpose,—*i.e.*, prevention of flexion at knee. At the end of six months the deformity had been overcome to such an extent that with shoe elevated only three inches patient is able to touch heel to ground. During treatment has experienced a slight amount of transitory pain. At present time is able to walk, using one crutch to steady herself, but able to bear full weight upon affected limb.

Dr. Bradford, by means of several additional cases for which we have not space, successfully illustrated the following proposition: "In cases in which the deformity has not been of long standing, even when of a pronounced type, a light extension applied without regard to the line of deformity is sufficient to gain the result."

In reference to Dr. Bradford's paper, Dr. C. P. Putnam said he had not realized the amount of improvement in the case of the young woman. He considered the essential feature of the success was the increased ease in walking.

Dr. Post quoted a case which had been in the hands of Dal Cin, under whose manipulation it was said the leg had been brought down to the same length as the sound limb, and that the high shoe had been discarded. Dr. Taylor, of New York, examined the case, and found hip-joint immovable and limb flexed at nearly a right angle. The leg could be brought down to a level with the other, but only at the expense of a curve in the lumbar vertebræ, the patient supposing the motion to be in hip-joint.

Dr. Graham detailed his success in deep manipulation of stiff joints. A warm bath is followed by the quieting influence of gentle stroking of the joints and by deep manipulation. Careful passive motion is then tried, by means of which an opinion may be formed of amount of force necessary. After violent passive motion, deep kneading and moderately tight bandage increase patient's comfort. Involuntary muscular tension caused by affected joints often becomes a habit, and keeps joint in an irritable condition. In some cases patients should be taught to relax muscles by voluntary effort. Later, passive motion of gradually increased force, accompanied by resistance on part of patient, may be used together with massage. Violent rubbing, adopted by bone-setters, begets increased contraction and increases the evil.

UNUSUAL CASE OF TYPHOID.

Dr. W. C. B. Fifield informally reported an unusual case of typhoid. When patient (a young man) had recovered sufficiently to move about his room, he experienced a relapse. On arising from this, having reached a similar stage of convalescence, a second relapse occurred on sixty-ninth day. Dr. Fifield called on seventy-third day; found pulse nearly uncountable; temperature 105° F.; discharges involuntary; there was subsultus tendinum; belly very tympanitic, covered with rash, suggesting typhus, though too distinct; patient unconscious. Musk suppositories ameliorated symptoms. Seventy-sixth day, albumen appeared in urine. Musk replaced by small doses of morphia. Observed that whenever a large alvine discharge occurred, temperature fell a little. Seventy-eighth day, patient became violently delirious. About eightieth day, condition was so grave that he was not expected to live through the night. Leaving the house, physician was suddenly recalled, to find patient had fallen into convulsions. A new convulsion appeared as he re-entered room, during which an immense dejection took place. At this juncture temperature fell at such a rate that recovery was predicted, and actually followed. The result suggested that in cases following scarlet fever in which the urine is albuminous, a strong cathartic action brought about by one, two,

or three drops of croton oil will be likely to restore the patient to health.

UMBILICAL HEMORRHAGE.

In an infant 3 days old the umbilical cord dropped off, and a very severe hemorrhage resulted. The child could neither nurse nor cry without causing a jet of blood. A ligature being applied, it slipped and became useless. Dr. Fifield thought of using pins and then ligating under them; but the child seemed to be a "bleeder," and had nævi in various localities of the body. The proposal was therefore abandoned, it being thought unsafe. The expedient adopted and described by Thomas Day then suggested itself. This procedure consists in pouring a mixture of gypsum into the navel. Dr. Fifield procured plaster of Paris, prepared it, adding salt to make it set quickly, poured it gradually into the umbilicus, increasing the thickness until it had assumed a mound-like form. The bleeding ceased. After a few days the cast fell off, bringing with it the remnant of the cord. The child has continued well.

Dr. W. P. Bolles reported the case of a man of 70, who, thirty minutes before his visit, appeared to be well. He found the patient almost moribund. He was livid, breathed with extreme difficulty, and apparently was suffocating. It was difficult to catch any sound from the lungs because of noise in the throat; but a respiratory murmur was finally heard. Dr. Bolles went at once for stimulants, nitrite of amyl, etc. On his return the patient was dead.

Autopsy.—From symptoms before death, it was thought that a heart-clot might have existed. Examining the heart, not only was no clot found, but the organ was empty of blood. Neither lung was collapsed. On one side of the chest the pleura had disappeared by old adhesions. Incising the lung of the other side, serum issued with great profusion. The kidneys were found to be in an advanced stage of granular degeneration. The case, then, was one of acute pulmonary œdema.

On being asked why he did not bleed the patient, Dr. Bolles replied that the patient was so near death when he first saw him that bleeding was out of the question, and that nitrite of amyl would have done harm.

Dr. J. C. Warren mentioned that a French physician treated a similar case successfully with emetics, and thought such a course might have succeeded here. Dr. Bolles, however, had no time for the procedure, even if it had occurred to him.

ASTHMA IN A CHILD OF TWO YEARS.

Dr. Bolles found the child sitting with its hands on its knees, lifting its shoulders as an old man would in order to aid respiration. He had never before seen a similar case. An emetic relieved this attack. Leaving the child in a most comfortable condition, he was suddenly recalled, to find it had fallen back into the dorsal position, barely breathing; respirations 60 in the minute and shallow; expiration groaning; fingers and toes livid, the patient evidently dying. A sponge wet with ether was placed over the face. At first there was next to no respiration; then the child began to cry a little. The etherization was continued until anæsthesia became complete. The child slept calmly, and woke free from asthma. The case is supposed to be unusually rare.

PATHOLOGICAL SOCIETY OF PHILADELPHIA.

THURSDAY EVENING, DECEMBER 8, 1881.

The PRESIDENT, DR. S. W. GROSS, in the chair.

Organs from a case of acute tuberculosis. Exhibited by Dr. H. M. FISHER.

HELEN L., æt. 4. Father is a negro, mother a mulatto. Mother appears delicate; but no history of consumption in the family of either parent can be obtained. Child had always been considered healthy, and does not appear to have suffered from any of the usual diseases of childhood. I saw the case first November 12. About six weeks previous to my first visit, the mother noticed that the child was losing her spirits and appetite, was languid and listless, and complained of some abdominal pain. She noticed at the same time that the child's skin was hot and dry. No hæmoptysis occurred, no cough was noticed at this time, and there were no night-sweats. There had been no vomiting, no pain in the head was complained of, and no convulsions at any time occurred. The child had one small loose passage daily. She slept much during the day, and was rather restless at night. There had been at the same time progressive emaciation.

Upon examination, I found that the child was thin, but not markedly emaciated; the skin was dry, and on the legs and thighs there was considerable epidermic exfoliation. The abdomen was moderately distended with gas. Tongue presented strawberry appearance from enlarged papillæ. Pulse, 120; temperature, 102⅕°. Respiration perhaps somewhat quickened, but not notably so, and there seemed to be little or no dyspnœa. I was able to detect no dulness on percussion of the chest, nothing abnormal in the respiratory murmur, and no adventitious sounds. The child was very apathetic, and could not be induced to answer questions; but there was nothing that seemed to point to cerebral lesion.

November 23, eleven days from date of my first visit, I saw the child again. I was informed that for about a week a slight cough had been noticed, and that the emaciation had been rapidly progressing. This was indeed marked. The fever persisted (101⅘°). Respiration about 40, but no marked dyspnœa. A careful examination of the lungs

revealed some impairment of percussion resonance over the upper lobes of both lungs; but I could not convince myself of any impairment of resonance over the lower two-thirds of the chest.

Prolonged expiration and a few fine râles were heard in the right supra-scapular fossa, but over the rest of the lungs I detected nothing abnormal.

Death occurred three days later, without the manifestation of further symptoms.

Brain not examined.

Post-mortem examination, forty-two hours after death.—Rigor mortis has disappeared. Both lungs appear freely movable, and no adhesions can anywhere be detected. The pleural cavity appears to contain a normal amount of serum. Pericardial cavity contains also a normal amount of light straw-colored serum. Left ventricle dilated, and contains black blood and a soft black clot. The left ventricular wall appears thin, and the entire heart-muscle is flabby. The right ventricle contains also black partially coagulated blood. The orifices appear to be of normal size, and no valvular lesion can be detected. Bronchial glands enlarged, but not cheesy. The external surface of both lungs presents a general dusky red hue, with some yellowish-white mottling. This "marbling" of the tissue is most pronounced in the lower third of both lungs. The tissue of both lungs crepitates freely on pressure. The lungs do not float perfectly when placed in water. Upon section, a moderate quantity of frothy muco-pus exudes. The cut surfaces of both lungs present numerous fine grayish-white granulations. These appear to be somewhat more numerous in the upper than in the lower portions, and the left lower lobe is tolerably free from them.

Abdominal cavity.—The bladder is found to be largely distended with urine, its upper surface extending fully four inches above the symphysis. The intestines are considerably distended with flatus, but present—at least on their external surface—no evidences of tubercular granulations, and there are no adhesions or other indications of peritonitis. The spleen is much enlarged and of a mahogany-red color. Upon section, its cut surface is found to be granular. With tinct. iodinii the reaction indicative of amyloid degeneration is not produced.

Both kidneys are pale and flabby, and in both the capsule is easily removed without tearing the organ. Upon section, the cortical portion is found to be pale and opaque, swollen and slightly mottled, and in some portions of the section numerous grayish-white nodules are seen, none of which are larger than a pin's head.

The pancreas appears normal. I neglected to open the stomach and intestines, but externally I could see no evidence of inflammatory changes.

The liver is greatly enlarged, its right lobe extending one-half inch to the left of the xiphoid cartilage and about three inches below the ribs, while the left lobe extends fully four inches to the left of the xiphoid cartilage and about two and one-half inches below the lower margin of the ribs on the left side. The tissue of the liver is pale and opaque, and has a doughy feel. A few whitish nodules, similar to those in the kidney, were seen in the liver.

With the advice and assistance of Dr. Longstreth, I made the microscopical examination.

Lungs.—Tubercular aggregations are very numerous, but very few of these present central cheesy degeneration, being pretty uniformly stained from the centre to the periphery. The portions of lung-tissue adjacent to the tubercular granulations show catarrhal inflammatory changes, while other portions of the lung are nearly free from them.

On the other hand, the lung-tissue is seen to be hepatized in many places between nearly adjacent tubercles.

The *liver* presents numerous small tubercular masses in an early stage of formation, and the liver-cells show in places moderate fatty infiltration; but the most marked feature is the general atrophic condition of the cells. The tubercular masses are found chiefly in the interlobular connective tissue. There are but few of these masses within the lobules themselves.

Spleen.—None of the sections show well-defined tubercular nodules; but there are numerous aggregations of bright stained nuclear bodies scattered through the organ, and the elements of which these are composed entirely resemble the elements of newly-growing tubercle. The Malpighian bodies present no alteration, neither do the fibrous trabeculæ, except in portions occupied by the newly-growing tissue.

Kidneys.—In one section of the kidney, from cortex to pyramid, six tubercular nodules were counted. The largest and most fully developed nodules are in the region of the base of the pyramid. None of the tubercular nodules show any limitary membrane, but they pass off gradually into the surrounding tissue. The tubules which pass through the growth are not entirely destroyed: the capillaries, however, are pressed upon and obstructed. There are areas of the cortex where there is infiltration of nuclei. The endothelium of the tubuli is for the most part granular, but not sufficiently so to obscure the nucleus. There are no fatty changes present. The glomeruli and the arterioles are unchanged.

Cancer of the pancreas, duodenum, and mesenteric glands—Secondary lymphatic deposit—Pericardial adhesions. Exhibited by Dr. J. H. MUSSER.

That the patient from whom the specimens before you were taken was suffering from

cancer of internal organs was quite evident during his life. The exact localization of the deposits was not so easily determined. It was decided, however, that the disease involved the stomach, the mesenteric glands, the pancreas, the lymphatics of the neck and axilla of the left side, and probably the lungs.

The age of the patient (52 years), the rapid and extreme emaciation and loss of strength, the duration of the illness, the absence of high temperature, the occurrence of growths within the abdomen, with secondary lymphatic enlargement, although there was an absence of cancer-predisposition, pointed clearly to malignant disease. The patient was sick for three years. Dyspepsia, with poor appetite, epigastric fulness, flatulence, and acidity, dated from the beginning. Only six months prior to these observations did he fail in strength and lose flesh, and for a year previous did he suffer from pain in the back and the hypochondriac and epigastric regions.

We noted, on the 7th of June, 1881, that there was fulness of the epigastric and right hypochondriac regions and the upper half of the umbilical region, with marked bulging of the lower half of the latter region extending to the left towards the flank. An impulse was plainly seen in these areas. The abdominal veins were not enlarged. The surface-temperature was not raised. The epigastric and hypochondriac areas were hard and tender on palpation, but there was no defined tumor. The umbilical prominence extended transversely from an inch to the right of the median line, two inches to the left, and from the umbilicus to a point an inch below. It seemed to be a continuation of the upper prominence; but on percussion there was a distinct tympanitic note between the dulness of the upper and the flatness of the lower mass. Along the course of the aorta a slight systolic murmur was noted. The gastric symptoms and the evidences revealed by palpation and percussion led us to diagnose cancer of the stomach. The separation of the lower mass from the stomach, as shown by percussion, the position and size of it, the pressure on the aorta, and the œdema of the extremities, with extreme emaciation without obstruction in the intestinal tract, pointed to involvement of the mesenteric and lumbar lymphatic glands. During the time he was under observation he was fed on cream, and the fæces examined microscopically. They were found to contain large amounts of fat, along with epithelium, granular matter, cholesterin crystals, and food-débris. On account of the fatty stools the pancreas was thought to be involved. The post-mortem partially confirmed our ideas of the condition of the abdomen.

Inspection of the abdomen showed that the physical signs above detailed were due, in the epigastric and right hypochondriac region, to disease of the duodenum and pancreas; in the umbilical region, to mesenteric disease. The abdominal contents were matted together. The stomach was dilated and congested. Four inches of the duodenum beyond the pylorus was dilated so that its cavity would contain a base-ball. The walls were thickened, the internal surface ragged and ulcerated. The lower surface was adherent to the transverse colon, and ulceration caused a communication at this point. The omentum was not diseased. The mesenteric glands were all enormously enlarged, some being three inches in diameter, were white, of firm consistence, softened in the centres. The lumbar lymphatics were enlarged, matted together, and adherent to the aorta, limiting its calibre. The pancreas was also the seat of disease. The large intestine was fixed between the duodenal mass and the mesenteric mass, and caused the tympanitic note at that point. The duodenal ulceration showed the fallacy of our diagnosis of pancreatic disease by the fatty stools, and explained the diarrhœa. The liver was very fatty, and weighed four pounds eight ounces.

It was further noted that the glands of the lower part of the left side of the neck were enlarged and firm, as were also those of the axilla. From their pressure the left arm was œdematous. The veins over the inner portion of the shoulder and the upper portion of the anterior surface of the chest were greatly enlarged. There was marked fulness of the first and second intercostal spaces, distinct pulsation of the subclavian, transmitting a distinct impulse to the thorax from the clavicle to the third rib. Nothing abnormal on auscultation and percussion. This negative evidence caused us to exclude lung-involvement, although the fulness and impulse with lymphatic involvement caused us to think it probable. After death the lungs were found healthy above; at the left base a nodule of disease an inch square was found.

The other clinical facts of the case, which are of some interest, are as follows.

The patient had had frequent attacks of inflammatory rheumatism, was a hard drinker, exposed to great hardship, and had much care and trouble. Inspection of the heart showed retracted impulse in the fifth interspace inside of the nipple and in the epigastrium. The percussion-area was normal, the lungs encroaching properly. On auscultation at the xiphoid cartilage, a rough, high-pitched, short systolic murmur was heard. On account of the other interesting phenomena, the condition of the heart was neglected, and only the above noted. At the autopsy there were found pericardial adhesions of the anterior surface of the heart with the parietal pericardium. There was no valve-lesion.

The patient remained under observation ten days, when death took place from exhaustion, hastened by an uncontrollable diarrhœa. During life the blood was examined by Dr. Cathcart, and 2,255,000 red cells were

found in a cubic millimetre, and 1 white to 225 red.

Sections for microscopical examination were made by Dr. Dunn. Both the duodenal and glandular deposits were characteristic of scirrhus.

Fibrous stricture of the duodenum—Unusual tendency to the development of connective tissue throughout the body. Exhibited by Dr. J. H. MUSSER.

The facts of the case briefly are as follows.

A female; 55 years of age; married; living a life of great mental anxiety and distress, having had a large family and a cruel, worthless husband; of good habits; until the present illness had always been in good health. I attended the patient from the 23d of March, 1881, until July 11 of the same year. Early in the spring of the previous year she became weak and delicate, lost flesh, had no energy, and lost her appetite. During the summer and fall she remained about the same. During the winter she suffered from a weight and fulness in the stomach, flatulence and acidity, and constipation. Lost flesh and strength, and became sallow and anæmic. Six weeks prior to my attendance, vomiting began and continued. Dr. Girvin saw her a week before I did, and placed her on bismuth subnit. and lacto-peptine, and a milk diet. The vomiting always occurred several hours after meals, and the ejecta were composed of a dark, thin, sour-smelling fluid and the food eaten. Under the above treatment the vomiting ceased, and the patient gained flesh and strength. There were no evidences of a tumor, and, on account of the improvement, cancer was excluded. The general improvement continued during April, but she never regained her appetite. The tongue had a peculiar appearance, such as I had never seen: it was perfectly clean and smooth,—looked as if it had been shaven, apparently being denuded of epithelium and papillæ. In May she suffered from fever of an intermittent character, daily paroxysms preceded by chills or chilliness. Quinia would prevent a paroxysm partially, but did not cure them, and, on account of gastric symptoms, was stopped. The fever disappeared apparently without treatment. During this month the vomiting returned, and again she lost flesh and strength. June 1, I detected a tumor to the right of and a little above the umbilicus. It was about an inch broad and three inches in length, extending, as deep palpation showed, across the vertebral column. It was firm and slightly movable, raised by the aortic pulsation. There was no thrill, nor any pain. Temperature of abdomen was not increased; skin remained in folds when pinched; abdomen slightly tympanitic. The vomiting and constipation continued during the month, and on the 18th black vomit occurred. About this time she passed by stool a hollow cylinder, a cast of the intestine about six inches long, composed of mucus and epithelium. As the disease progressed, the abdomen became scaphoid, and the tumor was readily made out, while in the left hypochondriac and lumbar regions the dilated stomach, filled with food or gas, could be readily detected. From the persistent vomiting, the character of the ejecta, and the constipation, it was evident there was obstruction.

These symptoms continued, thrush developed along the intestinal tract, exhaustion became greater, and she died July 11 of starvation.

Dr. W. E. HUGHES made the post-mortem for me. Examination, eighteen hours after death. I noted as follows.

Rigor mortis well marked. Extremely emaciated. On opening abdomen, the organs were found in their normal position. The omentum was contracted to the width of two inches, very much thickened, but there were no nodules in it, and it was almost devoid of fat. It was mostly composed of fibrous tissue, bundles of which could be readily seen. In its meshes some fat was deposited. The stomach was dilated. Three inches of the pyloric end of the duodenum was found to be of a pearl-white color, shiny, and very firm to the touch. Longitudinal section proved this to be due to a growth which so encroached upon the calibre of the gut as to cause almost complete obstruction an inch and a half from the pylorus, a fine probe only being allowed to pass. The disease extended to, and for an inch invaded, the stomach-walls. The mucous membrane was congested and bathed with mucus. It was not ulcerated. On transverse section of the gut, four layers of tissue were readily discerned with the naked eye: a layer of the peritoneum, opaque and thickened; next a yellowish-white layer, appearing as if made up of parallel vertical columns, and being continuous with the muscular layer of the stomach, which was hypertrophied towards the pylorus. The third layer was of a fibrous appearance, pearly white, and very dense. Where the walls were thickest the mucous membrane of the duodenum could not be distinguished from the diseased layer: in fact, it was replaced by the mass, the membrane running up to and merging into it on either side. Over the remainder of the mass and the gut the mucous membrane was normal and was the fourth layer. Little columns or striæ of fibrous tissue could be seen extending from the third through the second yellow layer to the first or peritoneal layer, and under the peritoneum there were several little masses. The heart was normal and unusually small; the aorta of small calibre, with a few spots of atheroma. At the apex of the left lung a nodule of fibroid inflammation was found. That lung was bound down by recent pleural adhesions. The kidneys were small, firm, with a slightly adherent capsule and a narrowed cortical portion.

On microscopical examination, the duodenal disease was found to be due to a hypertrophy of the submucous connective tissue. The omentum was made up of an increase of the same tissue. The lung-nodule was composed of connective tissue; the kidneys were cirrhotic. It is of extreme interest to note in this case the general tendency to the proliferation of connective tissue, and also the peculiar change in the omentum. The pulmonary, pleural, duodenal, and renal proliferation can be imagined to be due to more or less long-continued irritation; the cause of the change in the omentum is without explanation, in my mind. From the observations of Bowditch and others, the size of the heart and aorta would have precluded a diagnosis of carcinoma, even without microscopical examination of the duodenum.

Dr. F. P. HENRY remarked that a point of decided interest in the specimens presented was the coincidence of contracted kidneys with a small non-hypertrophied heart. On a previous occasion Dr. Henry had presented to the Society a specimen of extremely contracted kidney from a case of phthisis, in which the heart was small and flabby, and had observed that to the production of cardiac hypertrophy an obstruction to the circulation was alone insufficient, but that, in addition, a fair state of general nutrition was essential. The case just reported illustrated this point with still greater emphasis.

In regard to the diagnosis of cancer when the physical signs of its presence are obscure, Dr. Henry remarked that he had made some observations with the hæmacytometer which convinced him that this instrument might be of decided value in this connection. In several cases of extreme cancerous cachexia he had found that the number of blood-cells per cubic millimetre ranged between two and three millions, an amount far in excess of what he had found in cases of pernicious anæmia. To quote his own words, used elsewhere in connection with the subject of blood-cell counting, "As every febrile disease has its temperature range, so the different forms of anæmia are distinguished by the degree of oligocythæmia to which they give rise."

Ruptured ovarian cyst—Death from peritonitis. Exhibited by Dr. M. LONGSTRETH, for Dr. J. G. LEE.

Emma Curnell; white; female; æt. 34 years; height, 5 feet 2 inches; born in London; married some sixteen years; died November 1, 1881, at 5.20 P.M. Had no children, except one fifteen years ago. Always menstruated regularly, and was always in tolerably good health, except that she complained occasionally of a pain in her right side.

Two months ago she began menstruating, and continued passing blood from the womb for somewhat over five weeks, which caused her to go to one of the dispensaries in this city. What was done for her relief there I was unable to ascertain; but on October 25 she was obliged to take to her bed, with severe pains in the abdomen, and was seen on October 29 by Dr. James Simpson, who found her "with a pulse of 84, skin cold and covered with a cold, clammy sweat, bowels very loose, vomiting incessantly, and she was constantly tossing herself from side to side of the bed, moaning with pain. Soreness on pressure over the abdomen; no tympany." Dr. Simpson was told that she had been in the same condition for five days, nothing having been done for her relief. Dr. Simpson directed turpentine stupes to the abdomen, morphia for the relief of pain, and that after she was relieved of the pain she was to take a pill of acetate of lead and a small quantity of opium, to check the looseness of the bowels. The doctor called on the 31st of October, and found her apparently much better. Vomiting checked; bowels stopped; belly soft but tender; no tympanitic condition. He directed tinct. cinchona and carefully restricted diet. He was again called in November 1, in the early part of the afternoon, and "found her pulseless, cold, but partially conscious; pupils normal, responding to light, but she was evidently suffering excruciating pain in the lower part of the abdomen," and moaned when he made the lightest pressure anywhere about the abdomen; "the belly was tympanitic." The family told him she had been suffering all the morning from pain. She died two hours later.

Post-mortem, twenty-one hours after death.—Body in ice. Rigor mortis partially developed. No external marks of violence. Purging from mouth. Abdomen considerably distended. No marks of violence on genitals. Upper portion of vagina containing some sanguineous matter. Peritoneal cavity contained about a pint of yellowish liquid. Omentum attached to intestines and bladder by recent inflammatory adhesions. Intestines firmly matted together by fresh inflammatory adhesions. Peritoneal walls, convex surface of liver, and under surface of diaphragm covered with freshly-effused lymph. The uterus was about the ordinary size of a multiparous organ, and its anterior surface seemed to be normal. On the right side, behind the broad ligament, extending from the pelvic wall to about the middle of the posterior surface of the uterus, was a cyst about three inches in diameter, tightly adherent to the uterus. On separating the margins of the adhesions, they appear as if cut with a knife. The greater portion of the cyst-wall is sufficiently thin to be translucent, while the portions about the ovary are firm, rigid, and at places one-half inch in thickness. Nearly the whole of the peritoneal surface is covered with inflammatory lymph, uterus, ovaries, etc. The lining of the cyst is smooth. Lying at the junction of the cyst and the uterus is an oval body, apparently continuous with the cyst, which on section

showed several small openings resembling enlarged ovarian follicles. No very distinct trace of the Fallopian tube could be made out, though a rounded cord-like body passed from the upper corner of the uterus along the upper surface of the cyst, turning to reach the position of the ovary. The ovary and Fallopian tube of the left side are firmly matted together by old inflammatory adhesions. The os uteri is dilated; the neck and cavity of the cervix was ulcerated or inflamed. The uterine cavity appears normal. No probe can be passed into right Fallopian tube.

Heart, lungs, liver, kidneys, spleen, and other organs healthy. Head was not opened.

Cause of death—Peritonitis (shock), result of a rupture of an ovarian cyst.

Horseshoe kidney. Exhibited by Dr. H. F. FORMAD.

Dr. FORMAD said that he simply showed the specimen on account of its rarity, as the organ was—although of abnormal form—healthy. The connecting bond between the two lateral halves was also unusually thick.

Dr. SHAKESPEARE said that this was the second specimen which had been shown before this Society during the past year. Both specimens were removed from patients dying at Blockley.

Sarcoma of the capsule of the lachrymal gland. Exhibited by Dr. CARL SEILER, for Dr. KEYSER.

The exhibitor explained that he had no history to present except the bare facts that Dr. Keyser had removed the primary tumor May 22, 1881, and a recurrent growth October 21, 1881. Dr. Fenton, however, was present, who doubtless could give some additional points of interest.

Dr. FENTON said that he had nothing special to add, except that when first seen no visual trouble was complained of, but that latterly the eye became displaced by the growth. Until quite recently no pain was complained of. Dr. Fenton did not think that the whole of the growth was removed at the first operation. At present there were signs of a recidive since the operation of October 22, 1881.

PHILADELPHIA COUNTY MEDICAL SOCIETY.

A SPECIAL conversational meeting of the Society was held at the hall of the College of Physicians, Philadelphia, November 16, 1881, Dr. Albert H. Smith, President, in the chair.

COMPOUND DISLOCATION OF SEMILUNAR BONE.

Dr. M. O'Hara presented a case of successful treatment of compound dislocation of the semilunar bone, with preservation of motion at the wrist (see page 301).

Dr. H. H. Smith said that it was a remarkable result: it was apparently a case for amputation; at least, a stiff wrist might have been expected, but there was scarcely any.

Dr. C. B. Nancrede, in referring to the mechanism of this dislocation, said that its direction and the readiness with which it obtained was due to the obliquity of its surfaces of articulation with the cuneiform and scaphoid, and the wedge form of the bone, its base presenting upward and backward. In a fall upon the palm, when the first row of carpal bones is forced into the socket formed by the radius and the triangular fibro-cartilage, the configuration of the os lunare above described, aided by the obliquity of the articular surface of the radius, *compels* the upward and backward displacement of the bone. This is the direction of displacement in all cases, Dr. Nancrede believed. In view of the rarity of displacement of single carpal bones, he would recall the fact that he had reported a case last winter in which the scaphoid had been partially rotated, and its outer portion displaced *forward*.

SYPHILITIC NECROSIS OF BASE OF THE SKULL.

Dr. James E. Garretson exhibited a patient recently subjected to operation for necrosis of the base of the skull, of which he gave the following history. Nine months ago the man came to him with exposure of the alveolar process of the left superior maxillary bone. After waiting in vain for the separation of a sequester, all of the diseased structure was removed, a surgical engine being used. Shortly afterwards an ulcer formed, exposing the palatine process, which process was cut away back to the palate bone. Later an ulcer attacked the soft palate, and, extending to the pharynx, was followed by superficial necrosis of what was inferred to be the basilar process of the occipital bone. A sequester formed, which, on removal, was found to be part of the vomer and vaginal processes of the sphenoid bone. The patient was placed upon constitutional treatment, and did well.

In speaking of the treatment of syphilitic ulceration, Dr. Garretson incidentally remarked that nothing in his experience had been found to equal the tincture of iodine as a local application.

OPERATION FOR FACIAL NEURALGIA.

Dr. Garretson also exhibited the results after an operation for excision of the infra-orbital nerve for the relief of neuralgia. The operation had been once before performed unsuccessfully. On looking into the patient's mouth, he had detected caries of the alveolar process opposite the first molar tooth, apparently extending into the antrum of Highmore. Two weeks afterwards a second carious point appeared in the neighborhood of the bicuspid tooth. An eye-tooth was found broken and carious: it was also ex-

tracted. The case was treated according to the observed indications, but without permanent relief of the neuralgia. A careful examination was made, but without discovering further cause, for he took it for granted that such a persistent condition implied some lesion. He finally concluded that the resected nerve had rejoined, and he made another section, with complete relief up to the hour of showing the patient. The point of special interest in this case is the restoration of the divided nerve, which took place inside of two months. In referring to the possible remote causes of neuralgia he mentioned a case of a lady who suffered with pain in a bicuspid tooth, which was extracted without relief. Finally it was discovered that there was an ulceration within the uterus, which being treated, the neuralgia subsided.

Dr. R. J. Levis said that he was especially interested in the case, as he had performed the first operation by simple section of the nerve, and his design was, in case this was not sufficient, to go farther back and remove the trunk of the nerve from the sphenopalatine foramen. He had on six occasions cut the trunk of the inferior dental nerve: four cases were total failures, two complained of great sensibility about the peripheral distribution of the nerve.

INTESTINAL CALCULI.

Dr. A. Schapringer presented specimens of intestinal calculus discharged from an abscess in the right inguinal region of a boy. He was also suffering with fibroid phthisis. It was noticed that he had no cough, although he had all the other symptoms of the disease of which he shortly afterwards died. Subsequently the reporter had read of a case of phthisis in which the cough disappeared on the occurrence of an inguinal abscess.

Dr. J. T. Eskridge thought that the flow of pus from the abscess relieved the cough by reducing the discharge from the lung, in the same manner as some physicians still use the seton and issue in consumptives. In cases of anal fistula complicating phthisis the patient does better while the discharge is free; when it is stopped he feels worse.

In regard to the concretions it is difficult to decide, in the absence of a post-mortem examination, whether they came from the intestine or from the vermiform appendix. The bodies found in the latter situation are generally dried mucus, epithelium, and fæcal matter.

Dr. E. T. Bruen mentioned a case of intestinal obstruction in which the indications seemed to point to the presence of a gall-stone in the ileum, which had started from the gall-bladder four months before. Afterwards the stone was passed by the rectum. Da Costa mentions a case in which nine months were passed in the transit of a gall-stone from the gall-bladder to the rectum.

SUICIDE BY TAKING PARIS GREEN.

Dr. Packard related the following case:

On September 9, 1881, at Cape May, New Jersey, he was called at 1.30 P.M. to see a lady who had been staying there for several months under the care of a nurse, and who was said to have taken a quantity of Paris green. She had been long under treatment for general nervous disorder, and had been sent to the sea-side for her health. The nurse stated that the poison had been taken while she (the nurse) was at her breakfast, at about 8.15 A.M.

On being questioned, the patient avowed that she had swallowed some Paris green because she was tired of life. But there was no trace of irritation about the mouth or throat, and no pain or tenderness in the abdomen; there was pallor and leakiness of the skin, the hands and feet were cold and bluish, and the pulse was rapid and thready. Some fluid in a basin and on a towel was shown, which she was said to have vomited; and in the commode there was, besides fæces, a quantity of green substance, said to have been passed along with them.

The nurse asserted that the patient's general condition was not worse than it had been, and, in view of the hysterical symptoms previously manifested, there was ground for doubt whether the patient had not been deceiving her attendants in order to frighten them.

Under the usual tests the green stains on the towel showed the presence of copper and arsenic.

Dr. P., in spite of his doubt as to the real source of the symptoms, gave at once the whites of six eggs, and ordered ammonia, brandy, milk, and the continuance of external applications of heat, which had been already made. The same was repeated about two hours after. No other symptoms showed themselves, but the prostration steadily increased until about 11 P.M., when death took place quietly and painlessly.

By order of the coroner, a post-mortem examination was made on the 11th, thirty-eight hours after death, with the assistance of Dr. James E. Mecray. The thorax and abdomen only were examined.

Body emaciated. Stomach full of brownish grumous liquid; intestines not very full, but containing here and there masses of fæcal matter and a good deal of mucus. In a portion of the latter was found an undissolved fragment of Paris green, proved by the usual tests to contain arsenic and copper. Other portions were also found, one of which, submitted to Prof. J. J. Reese, was analyzed by him with the same result.

The right kidney was intensely congested, the left slightly so; bladder entirely empty.

The uterus was very large and heavy, much congested, and anteverted. It contained a soft clot of blood; in the cervix was a mass of pearl-like, firm, glandular enlargements,

each about the size of a pea, closely pressed together. Both ovaries seemed converted into masses of soft clot.

The liver, spleen, and thoracic organs were normal.

The interest of this case seemed to Dr. Packard to lie in the absence of all the ordinary signs of irritant poisoning, and the doubt thus thrown upon the diagnosis. Four hours were said to have elapsed since the taking of the poison before he saw the patient; and if she had really (as proved to be the case) swallowed enough to induce the constitutional symptoms observed, it seemed as if some pain or tenderness should certainly have been manifested. The time for any attempt at evacuating the stomach had passed by, and, indeed, copious vomiting had taken place: so that all that could be done was to endeavor to neutralize the poison, if there, and to support the strength.

Dr. Leffmann said that arsenic sometimes has a marked sedative action upon the nervous system, instead of its ordinary irritant effect. In 1875 he had seen a case in which a teaspoonful of arsenic had been swallowed with a fatal result. There was no stomach-irritation: the patient died with symptoms of narcotic poisoning.

With regard to ordinary Paris green, it is also to be borne in mind that as usually sold it is largely adulterated with plaster of Paris, etc., to increase its bulk.

Dr. E. T. Bruen thought that the sedative action might really be shock, aggravated by the fact that the agent was taken with suicidal intent.

Dr. Dunmire mentioned a case of an unsuccessful suicidal attempt with Paris green, which produced vomiting, and the next day the patient went about his business.

SCENTED IODOFORM.

Dr. C. H. Burnett presented some scented iodoform powders for aural practice (see p. 302).

Dr. H. A. Wilson said that the odor of the iodoform is generally more persistent than that of the agents used to disguise it. He mentioned a combination of iodoform with musk and attar of rose.

Dr. Seiler had to give up iodoform on account of its odor, which he was unable to correct or remove.

Dr. F. Woodbury recommended iodoform cotton, made by dipping absorbent cotton in ethereal solution of iodoform and allowing it to dry. By this means a smaller amount of iodoform is introduced into the ear, and it may be the more readily disguised by some essential oil,—the volatile oil of eucalyptus especially.

SPECIMEN OF CANCER OF THE ILEUM.

Dr. M. B. Musser exhibited a specimen of cancer of the ileum, which was referred to the Pathological Committee.

PERITONITIS AFTER RHUS-POISONING.

Dr. G. B. Dunmire reported a case of proctitis and peritonitis resulting from rhus-poisoning of the buttocks.

Dr. J. T. Eskridge said that all persons are not equally susceptible to rhus-poisoning. Although easily affected himself, he had tried some experiments with the tincture of rhus, commencing with a few drops, increasing gradually to half a drachm, without experiencing any very unpleasant symptoms, beyond some griping in the bowels. Another point is that the inflammation following rhus is not so destructive as an ordinary inflammation. With regard to treatment, he believed that hydrocyanic acid relieves more quickly than anything else.

Dr. M. B. Musser recommended the application of grindelia robusta (℥ij fluid extract to Oj water).

Dr. Woodbury urged the fact that the case when it comes under treatment is simply one of acute superficial dermatitis, for which bicarbonate of sodium or potassium in solution proves useful. Specific medication is unnecessary.

Other members recommended fluid extract of grindelia robusta diluted (℥j in ℥viij); sulphate of zinc (gr. ij, ℥j); tincture of benzoin, hydrocyanic acid (℥ss to ℥xvj); sodium bisulphite, fluid extract of serpentaria full strength, bromine (♏x to ℥j ointment), sodium bicarbonate.

Dr. Leffmann stated that the specimens presented were both of the same species of rhus.

Report of Committee.—The Pathological Committee reported that the specimen referred to them at a previous meeting, presented by Dr. Eskridge, was one of alveolar sarcoma.

SPECIMEN OF FIBROMA OF OVARY.

Dr. B. F. Baer, on behalf of Dr. Goodell, presented a specimen of large ovarian fibroma removed by abdominal section six weeks before.

PERSISTENT HYALOID ARTERY.

Dr. W. S. Little exhibited two patients having a persistent hyaloid artery (see p. 299).

REVIEWS AND BOOK NOTICES.

THE NURSE AND MOTHER. A Manual for the Guidance of Monthly Nurses and Mothers. By WALTER COLES, M.D., Consulting Physician to St. Ann's Lying-in Asylum, St. Louis, etc. I. H. Chambers & Co., Chicago, St. Louis, Atlanta, 1881.

The nurse and mother are two different persons. The nurse is a monthly nurse. The nurse of to-day is too much like the nurse of two thousand years ago. Hippocrates describes her like a photograph. She can be

recognized at a glance portrayed on Egyptian monuments. The author wishes to elevate her, so that a resuscitated mummy might at least feel some doubt as to her position and occupation.

Nature must provide the material. A good nurse must have a few natural gifts. She "should possess intelligence," with "good judgment" and "discretion," "good sense," adaptability,—in fact, "tact:" otherwise, education—*i.e.*, the perusal of this book—will never make her a "good nurse." The reason good nurses are not as plentiful as blackberries is therefore evident.

The nurse must not tell horrible or lewd stories in the "lying-in room," even if the doctor (shocking thought!) encourage her in it; she must never carry the contagium of puerperal fever from one case to another; she must cook with the best graduate of the Royal School of Cookery; and when her patients long for unreasonable articles of food at unreasonable times, she must be able to explain that "longing" and "marking" are by no means cause and effect,—that a lady may long with unsatisfied longing for strawberries, and her infant be marked with a pineapple; and even cite, if necessary, the sad case of the eminent lady who longed—though her husband was a temperance lecturer—for port wine, while her infant, contrary to her ardent expectation, had only a simple lemonade-mark on the posterior of its little person. She should know all the rough signs of albuminuria, the duration of pregnancy, how to harden the nipples so that they will certainly crack when the infant seizes their dried and brittle exterior, and so prevent that "much-dreaded complication *rising breast*," just the opposite of "falling sickness," you know. She should recognize the premonitory signs of labor, and be on hand to cheer her patient; in fact, judging by the book, she should be forever on hand at every stage of pregnancy to explain everything and satisfy everybody. She should always "take her cue from the physician," should frown upon the intruding husband, teach the proper way to "take a pain," by "compressing the jaws and lips together," be always ready to extol the forceps when the doctor wants to get home, and soothe the alarm of the mother as she gazes at the swollen head of her newly-born by the author's explanation of "the hand and the hole in the board." The syringe and catheter should be as familiar to her as knife and fork, and she should be an adept in drawing out depressed nipples with hot bottles. In short, she should be a thoroughly accomplished, dignified, sympathetic, ready, experienced, agreeable person.

Should no doctor be on hand at the moment of birth, she must see to the safety of the child, and, after suitable waiting, tie the cord. Should it be asphyxiated, she should try even artificial respiration, having learned how on page 115. In post-partum hemorrhage we see her sitting calmly by the bedside, with the womb grasped firmly, or, if contracted, "watching it," or, anon, when it relaxes, dashing cold water upon the abdomen. In puerperal convulsions she "places a toothbrush handle between the patient's jaws, and holds it there." With the same heroic fortitude, and when nothing else turns up, she studies the urethra, "its location and direction," and familiarizes herself with the use of the catheter. When nothing about the mother any longer calls for scientific nursing, when the uterus stays shut without watching, and there is no longer urine enough in the bladder to form a basis for any more self-education, the child will demand some little care. The nurse, if the physician believe in washing, will wash the infant; but if he incline towards greasing it only, she will serenely acquiesce. She will never fill the baby's stomach with "salt or sugar and water, coal-oil, or goose-grease," because she knows that such things, especially coal-oil, will rather induce colic than prevent it. She will never apply nostrums to the unhealed navel or squeeze the swollen breasts of her little charge. With red gum, jaundice, thrush, and snuffles, she will feel at home; and having thoroughly learned the "Rules for the Management of Infants," at the end of the book, she will never err in the matter of infant diet, for she will be in all points the perfect nurse. E. W. W.

UNTERSUCHUNG VON BLUTSPUREN. Von DR. G. DRAGENDORFF, Professor der Universität Dorpat. (Examination of Blood-Stains. By Dr. G. Dragendorff, Professor in the University of Dorpat.) 8vo, pp. 24. Pamphlet.

This monograph, which, from its paging, etc., seems to be part of a large "hand-book of medical jurisprudence," is written to exhibit the extent to which our present knowledge enables experts to answer the questions as to the nature and origin of blood-stains, which so constantly arise before legal tribunals; and it is a pity that so much laborious effort should have been expended to so comparatively little purpose, simply because the author neglected to study the contemporary literature of England and America.

Prof. Dragendorff commences with minute directions for the spectroscopic analysis of supposed blood-stains, depicting the bands of hæmoglobin, oxyhæmoglobin, hæmatin, etc., in an excellent chromo-lithograph, and declaring that this method of examination should never be omitted, although it ought always to be supplemented by the "guaiacum test" and that of the production of "Teichmann's blood-crystals." These two modes of investigation are next described in detail, and the student carefully warned against possible errors from cochineal with alum and potassic-tartrate, and also from the coloring-matter of the feathers

of the *Turacus albocristatus*, with the microspectroscopic; and from salts of iron, manganese, and copper, flannel and filtering-paper, saliva, albumen, bile, etc., with the guaiacum test. In the latter process, however, our author uses the antiquated method of Van Deen and Liman, with oil of turpentine, instead of the far-preferable plan with ozonized ether, for which the world of medico-legal experts is indebted to Dr. John Day, of Geelong, Australia.

In attempting to solve the greatest of all problems connected with blood-stains,—viz., whether the blood in a given spot is that of a man or of one of the inferior animals,—Dr. Dragendorff proceeds on the erroneous assumption that it is necessary to restore the corpuscles in their entirety, instead of seeking for measurement their stained "cell-walls" (or stroma) only. He therefore declines to formulate any definite conclusions in regard to the most important branch of his subject. This is much to be regretted, since, if our author's opportunities and lingual attainments had permitted him to consult the standard works of A. S. Taylor, Woodman and Tidy, or Wharton and Stillé, he might have found that American experts, following the methods recently devised in this country, readily distinguish between human blood and that of the usually-slaughtered domestic animals (ox, pig, sheep, or goat); and if he ever visits Philadelphia, he can also learn in the laboratories of the University of Pennsylvania how to permanently mount specimens of washed-out blood-stains, even of advanced age, for prolonged study, instead of watching so anxiously for the exact "moment," in which alone he imagines the required observation can be made, "when the substratum (!) of the clot is partly dissolved, whilst the blood-corpuscle is still preserved" (p. 496).

Valuable suggestions in regard to the examination of blood upon earth, and in water, etc., conclude the treatise, which, without announcing any important *original* investigations, is, with the exceptions noted above, a useful *résumé* of existing knowledge, creditable alike to its learned author and to the small but time-honored Livonian University from whence it comes. J. G. R.

GLEANINGS FROM EXCHANGES.

TETANUS FOLLOWING OVARIOTOMY—DEATH ON THE EIGHTEENTH DAY—TRIAL OF PHYSOSTIGMA, ATROPINE AND NICOTINE, CHLOROFORM INHALATIONS, AND MORPHINE.—Dr. James M. Bennett (*London Lancet*, December 3, 1881) reports a case of the removal of a large multilocular tumor containing fifty-nine pints of fluid, in which the wound healed rapidly and the prognosis seemed most favorable until the evening of the fifteenth day, when the symptoms of tetanus set in, which were followed by death on the eighteenth day. Opium and quinine were given, a grain of each every four hours. On the morning of the sixteenth day—as she had not slept well the night previously, and to try the effect of belladonna—the one-sixteenth of a grain of sulphate of atropine was hypodermically injected; beef-tea injections, with five grains of quinine in each, were administered every three hours. No benefit appearing after three repetitions of the atropine, the extract of physostigma, in one-quarter-grain doses, was substituted, the temperature at 6 P.M. being 102° and the pulse 130 at 8 P.M. The pulse before the physostigma injection was 130; fifteen minutes after it had fallen to 118. Second injection at 12 P.M.: pulse 115 before; fifteen minutes after, 100. Third injection at 4 A.M. on the 17th: temperature unchanged; pulse 118 before, 106 after. Fourth injection at 7.30 A.M.: increased the physostigma to one-third of a grain; pulse before, 112; after, 100; temperature 103.2°, unchanged by the action of the drug. Fifth injection at 10.30 A.M.: same quantity used; pulse 117 before, 108 after. Sixth injection at 1.30 P.M.: pulse before, 130; after, 120. Although the pulse was reduced, the tetanus was more marked after its use, the opisthotonus becoming well established. Chloroform inhalation and one-quarter of a grain of morphia injection substituted; mercurial ointment with belladonna rubbed into the spine, simply as an adjuvant. At 8 P.M. nicotine was tried in one-grain doses, according to the directions of Prof. Houghton. The first dose was swallowed with difficulty. One grain was thrown into the rectum within an hour, and was retained, as was a third dose. From none was there the slightest physiological effect. At 10 P.M. the opisthotonus was so marked and the spasms so painful that the chloroform inhalation, with morphia hypodermically, had to be resumed. The temperature at 12 P.M. was 105°. The tetanus became of the most complete kind, The catheter passed with difficulty into the bladder and the enema into the rectum. The patient was sensible to within a short time of her decease, and was hopeful to the last. She sank exhausted at 8 P.M. on the eighteenth day after the operation. There was no portion of the wound that was not thoroughly united, and there was no exciting cause to be made out for such an unexpected result to an otherwise successful case. The temperature just prior to death was 107.2°.

CAUSE OF THE VARIATIONS OBSERVED IN THE AMOUNT OF OXYGEN IN THE AIR.—Dr. E. W. Morley, of Western Reserve College (*American Journal of Science*, December, 1881), writing upon the subject of the possible cause of these variations, advances the theory that the deficiencies observed in the amount of oxygen in the atmosphere are caused by the descent of air from an elevation. He bases his hypothesis upon the comparison of

maps and reports of the Signal Service with a series of analyses of air, made daily by himself at Hudson (Ohio), covering a period of fifteen months, and in which he finds that the direction of the wind was generally *from* the centres of high barometric pressure, and that times of high barometric pressure were usually followed by deficiencies of oxygen in the air at such places.

In a second article in the same number he shows that Jolly's hypothesis is not in accordance with facts, and at the same time advances a second hypothesis of his own. Jolly's hypothesis supposes that the volumes of air which exhibit the deficiency of oxygen are brought by currents from the tropical regions, that the deficiency of oxygen was caused in those regions, that it was caused by the consumption of oxygen in the oxidation of organic matter, and that at some places within the tropics this consumption is therefore considerably greater than the liberation of oxygen in the process of vegetation.

Dr. Morley's hypothesis supposes that the volumes of air deficient in oxygen are brought by currents from an elevation above the surface of the earth, that the deficiency of oxygen was caused while these volumes were at this elevation, and that it was caused by that assumed physical action according to which, in a high vertical column of a mixture of two gases, the heavier will tend to become less abundant at the top of the column.

His chief objections to Jolly's hypothesis are that there is no direct evidence that the atmosphere near the equator is poorer in oxygen than the air of higher latitudes; that it is difficult to ascribe to the cause assumed by Jolly a magnitude sufficient to produce the observed effect; that no such amount of transportation as is required by the hypothesis takes place through the air, nor does it take place by the waters of the globe; and, lastly, that it is very doubtful whether the whole consumption of oxygen on the globe would account for the observed deficiency of oxygen, which sometimes reaches 0.004 to 0.005 at 50° latitude, even if it be supposed that this total consumption for a certain short period be taken from one and the same small volume of air.

ASCITES IN THE FOETUS, OBSTRUCTING DELIVERY.—Dr. Herman (*Medical Times and Gazette*, December 24, 1881) reports a case of obstructed delivery from ascites in the fœtus, occurring in a patient, æt. 39, in her eighth pregnancy. The only unusual symptom she had noticed was that she was frequently unwell, when she suffered from faintness, and dimness of sight, and difficulty in moving herself about in bed. The face presented with chin posterior, but quite high up. After a few hours an attempt was made to turn the chin forward and deliver with the forceps. This failing, podalic version was performed; but not until after the fœtal abdomen had been perforated and two or three pints of fluid evacuated was delivery complete. The mother made a good recovery. After delivery the internal conjugate diameter was found to measure three and a half inches. The only abnormality noticed, upon examination of the body of the child, was a cyst in the right suprarenal capsule, which contained blood. This cyst, together with the capsule, was about the size of the kidney, and extended upwards so far that it pressed on the portal vein at its entrance into the liver.

Out of ten cases collected of fœtal ascites, four were of inflammatory origin. In three the liver was enlarged, and in one it was indurated. In two the spleen was large. In one there was general dropsy and distention of the bladder, and in three no other morbid signs were recognized. It was found necessary in three cases only to perforate the fœtal abdomen.

CURIOUS CASE OF LEAD-POISONING.—Dr. Churton reports a curious case of a dressmaker, who was attending the Leeds Dispensary, and who was found to have a distinct blue line upon the gums, which disappeared in the course of a few weeks under iodide of potassium. An investigation of the case revealed the fact that silken thread, being sold by weight and not by length, is sometimes adulterated with sugar of lead; and upon questioning the patient it was found that it had been a common practice with her, when at work, to hold silk (and also other kinds of thread) in her mouth, and that she had done this the more readily with silk inasmuch as it often had a sweet taste. Upon further inquiry, it was learned that the silk thread of the best makers is tasteless, whereas some inferior thread is sweet.—*British Medical Journal.*

TREATMENT OF SPASMODIC DYSMENORRHŒA AND STERILITY BY DILATATION OF THE CERVICAL CANAL WITH GRADUATED BOUGIES.—Dr. Godson, in a paper upon this subject read before the Obstetrical Society of London, presented notes of five successful cases, in which natural menstruation followed the use of the bougies, and pregnancy occurred within a few months. Five other cases thus treated had resulted less encouragingly, although the dysmenorrhœa was relieved in some of them. The dysmenorrhœa was of the kind known as spasmodic or obstructive, characterized by severe colicky pain in the hypogastric and sacral regions, either before the menstrual flow or coincident with it. The author preferred to drop the title obstructive, as he knew no evidence to prove that there was a want of patency of the cervical canal, and Dr. Duncan had passed a probe into the uterus at the height of the pains without meeting with obstruction. He believed that the spasm of the uterine muscular tissue was of

itself sufficient to give rise to the severe pain without obstruction. The author's conclusions were: 1, that the method was simpler and safer than any other proposed; 2, that the dilatation might be performed with safety at the house of the consultant; 3, that a very small amount of dilatation was necessary; 4, that the operation should be performed within a week or ten days after a period; 5, that it should be done not on successive days, as hitherto recommended, but all at once; that the first bougie should be a small one, and that there should not be sufficient difference between the size of successive bougies to cause a splitting of the mucous membrane; 6, that pregnancy appeared to occur on account of the dilatation having cured the condition on which the dysmenorrhœa depended. In none of his cases was there either stenosis or constriction of the canal by acute flexion. The theory of spasmodic constriction being discarded, the author suggests that the impediment was a spasmodic constriction, causing ejectment of the semen.—*London Lancet*, December 31, 1881.

MISCELLANY.

HIGH LOCAL TEMPERATURES.—Dr. William Squire (*London Lancet*, December 10, 1881), in discussing the excessive temperatures in non-fatal cases from time to time recorded of late, states, as a provisional deduction, that natural variations seldom exceed by as much as 4° or 5° the temperature of a corresponding part of the surface, and are still more rarely even a degree above the internal or general temperature of the body. During scarlet fever the temperature *in recto* has been 105° and at the same time only 97° in the skin of the abdomen or in its folds. In the axilla 103° on the thoracic side and only 98° on its brachial aspect has been noted in a case of acute pulmonary congestion near the close of chronic lung-disease, while as much as 4° difference between the temples was seen in a case of probable cervical sympathetic trouble. In view of the fact that, in two instances of excessive high temperature recorded, intentional deception has been demonstrated, and from the liability to error through unequal warming or covering of parts, he suggests that it would be well if the recorders of some of the more paradoxical observations would review their experience by the light of these facts, and if those who make observations in future would take pains to exclude these and other possible sources of error.

EXPERT FEES IN COURTS OF JUSTICE.—In a recent suit for extra fees for expert testimony, tried before the Supreme Court of Boston (*Boston Medical and Surgical Journal*, December 22, 1881), it was claimed, on behalf of the defence, that a medical man is bound to testify to anything he may happen to know relevant to a case in court, whether it is a matter of fact in the particular case or of general professional knowledge or opinion, and that he cannot lawfully require for giving his opinion any greater fees than an ordinary witness is entitled to. The court, however, disallowed this defence, and ruled that a physician is not bound to give his professional opinion for nothing in a court, any more than elsewhere, and that he may require to be paid for testifying as an expert.

ACCORDING to the *Lancet*, the death-rate per annum for the second week in December, 1881, was equal to 43.9 per 1000 in St. Petersburg, 23.2 in Stockholm, 28.6 in Paris, 18.9 in Brussels, 21.7 in Dresden, 38.1 in Buda-Pesth, 25.1 in Venice, 28.1 in Naples, and 40.4 in Alexandria. It was equal to 21.3 in Philadelphia, 22 in Brooklyn, 28 in Baltimore, and 28.7 in New York.

DR. KIBBE reports, in the *Rocky Mountain Medical Times*, a case of transient mania following the lodgment of a bedbug in the ear, the peculiarity of which was that the mania came on some hours *after* the removal of the bug.

NOTES AND QUERIES.

In the text of Dr. Reichert's article on "Two New Kymographions," etc., in the last number, several errors occurred in the numerals relating to several parts in the figures, notably in the last line of the second column, p. 268, where 5 should be 9; also in p. 271, where 6 should be 7, and *vice versa*. There are several others, though less important.

Also, on p. 271, second column, it says, "by pulling consentaneously on the two cords 9 and 10." These cords were not numbered in Fig. 2, but by referring to Fig. 1, in which the cords are similarly arranged, it would read "by pulling consentaneously on cord 6 and the cord by which weight 5 (lowest weight) is suspended," etc.

OFFICIAL LIST

OF CHANGES OF STATIONS AND DUTIES OF OFFICERS OF THE MEDICAL DEPARTMENT U.S. ARMY FROM JANUARY 22 TO FEBRUARY 4, 1882.

SUMMERS, J E, LIEUTENANT-COLONEL AND SURGEON, MEDICAL DIRECTOR DEPARTMENT OF THE PLATTE.—Leave of absence further extended one month. S. O. 20, C. S., A. G. O.

STERNBERG, GEORGE M., MAJOR AND SURGEON.—Granted leave of absence for one month; and, during his absence, Surgeon J. C. Baily to attend the sick at Point San José, Cal. S. O. 9, Military Division of the Pacific and Department of California, January 16, 1882.

WOODWARD, JOSEPH J., MAJOR AND SURGEON.—Granted leave of absence for six months on surgeon's certificate of disability, with permission to go beyond sea. S. O. 23, A. G. O., January 30, 1882.

COMEGYS, E. T., CAPTAIN AND ASSISTANT-SURGEON.—Now stationed at Columbus Barracks, Ohio; to report in person to the President of the Medical Examining Board in session in New York City, for examination for promotion, and, upon completion of examination, to return to proper station. S. O. 19, A. G. O., January 25, 1882.

BANISTER, J. M., FIRST-LIEUTENANT AND ASSISTANT-SURGEON, FORT RENO, IND. T.—Granted leave of absence for one month. S. O. 18, Department of the Missouri, January 24, 1882.

MADDOX, THOS. J. C., FIRST-LIEUTENANT AND ASSISTANT SURGEON.—Having reported at these Headquarters, in compliance with S. O. 2, C. S., A. G. O., will report to the Commanding Officer, Fort Clark, Texas, for duty. S. O. 6, Department of Texas, January 16, 1882.